RAILROAD

MAGAZINE | JUNE 50c

1957

Symbol freight train on the Rutland crosses the trout-stocked Mill River

OUR TOUGHEST RAILWAY: THE RUTLAND

A Modern Success Story from Rock-Ribbed Vermont, by Charles Morrow Wilson

ATTENTION FISHERMEN!

Amazing 100 Year Old Gypsy Fish Bait Oil Formula

MAKES FISH BITE OR NO COST

—MYSTERIOUS SCENT MAKES SMELL FEEDING FISH GO CRAZY!

EXPERIMENTAL FISHING In an effort to prove to the folks around Destin, Fla., that many kinds of fish are attracted to bait by their keen sense of smell and that the product known as "Gypsy Fish Bait Oil" actually works, this field trip out of Destin on the Teknicolor was arranged, with Skipper Tim Boone. All in all, 1,295 pounds of fish were landed including red snapper, channel cat, porgies, piranka, pollack and other fish that feed along the bottom and are attracted to bait by sense of smell. The anglers are from left to right: Pete Thorne, Joe Love Jr., Charlie Upchurch, Buster Niquet, Stew Keith, Joe Love Sr., and Roy Martin, all of Panama City. Gypsy Oil was used on every piece of bait.

Here Are Genuine Reports About Catching Smell Feeding Fish!

Many Kinds Of Best Eating Fish Feed By Acute Sense Of Smell . . . And Here's More Proof Gypsy Gets Them!

"These fish were caught by my mother Mrs. Ophelia Warren, 974 High St. and Mrs. Lucille Bryant, 961 Park Place. We have all been more than pleased with the results from using Gypsy Fish Bait Oil."
Edward L. Warren
Box 1063, Macon, Ga.

Mr. McMahon and party with 3 big strings of catfish from Lake Kentucky, Tenn. "Gypsy's Amazing" they say.

"Enclosed is a picture of the fish we caught with Gypsy Fish Bait Oil, July 11. All my fishing friends want some."
Thom. W. Kysar
1326 W. Market
Indianapolis, Ind.

"I am enclosing 3 pictures of 2 different catfish we caught using Gypsy Fish Bait Oil on our bait. We fish the Fox River at Mineral Springs, Ill. where we have a summer cottage. One fish my brother is holding weighed 8½ pounds and the other one weighed 7¾ pounds."
Miss Dorothy Gribing
6052 S. Fairfield, Chicago 29, Ill.

Caught June 19, 1955 by Ray Crachel of C & M Grocery Store, 2347 S. Nicholas, Fresno, California. Used live minnows dabbed with Gypsy Fish Bait Oil.

30-POUND COD

"I had a remarkable experience near Ketchikan, Alaska. Trolling, I had placed Gypsy Oil on my bait. Suddenly I had a strike and after 20 minutes fight I found a 30-pound Cod on my line!"
E. F. Gronvall—U.S. Navy, Seattle, Wash.

73 FISH IN TWO OUTINGS

"Gypsy Fish Bait Oil is the best ever for really catching smell feeding fish. The first time I used it on my bait I caught 30 fish and the next time I fished I caught 43 fish. And they were the largest I've ever caught."
Louise Moore, Route 6, Box 280, Dublin, Ga.

10-POUND CATFISH

"I am writing to let you know how wonderful Gypsy Fish Bait Oil really is. On the very first day I used it I caught one catfish that weighed 10 pounds. I used a pole and bobber. All my friends keep asking me what I'm using."
Estellar Scott, Grady, Ark.

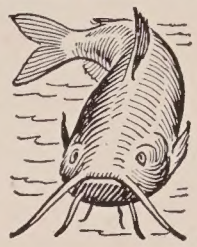
FRIENDS, HERE'S JESSE'S SECRET

"Boy, oh boy! I catch more smell feeding fish using Gypsy Fish Bait Oil than all my friends put together. They keep asking how can I do so well but I just laugh at them and say you got to know how it's done."
Jesse Messer, Bruceville, Ind.

WALLING KEITH CHEMICALS, INC.
Dept.437-H—Birmingham 1, Alabama

Use your regular bait . . . plug, minnow, worm, fly, night crawler . . . fish your regular waters . . . rivers, creeks, lakes, ponds, or the ocean . . . fish your usual way . . . still fish with pole and bobber, cast, troll, spin . . . all you do is dab a drop or so of the new double strength GYPSY FISH BAIT OIL on the bait. It's just that easy. And North or South, East or West . . . let them get one whiff of your bait while feeding and smell feeders all streak madly for your bait and usually the biggest one wins. You keep hauling 'em in to everyone's envy and amazement!

Like A Shark is Attracted By The Smell Of Blood...



Fishing experts are just learning what wandering Romany Gypsies found out 100 years ago . . . many kinds of the best eating fish such as catfish, snappers, bull-heads, carp often feed along the dark bottom and are attracted to bait by their acute sense of smell. Gypsies invented this mysteriously scented oil and it makes these smell feeding fish literally go crazy. It excites them through the thousands of smell organs that cover their bodies. Like a shark goes wild at the smell of blood, so these smell-feeders go crazy at the first whiff of the new double strength Gypsy Fish Bait Oil. Send the coupon and try double strength Gypsy Fish Bait Oil at our risk. If yours isn't the biggest catch in your entire party, your money back.

EVER CATCH FISH LIKE THIS?

"I have been using Gypsy Fish Bait Oil 2 years now and have never found anything to compare with it. A group of fishermen were sitting along a stone crib in the Portage River. They were using night crawlers for bait and weren't catching anything. I cast my line in on the other side of the crib and before the sinker hit the bottom I had a 6 pound silver catfish. And I repeated this 4 times before any of the others caught a fish. I showed them my worms and to this day they couldn't figure how I can catch big fish right where they only got nibbles and a few small bullheads. They don't know I used Gypsy on my bait and they didn't. Last night another party and I caught 24 catfish on rods and reels in 5 hours using Gypsy. Rush this order as I am about out. The big catfish run is starting and I am nearly out of bait and I would not know what to do without it."
Ray Hathaway, 226 E. 6th St., Port Clinton, Ohio.

FREE! FISHERMAN'S POUCH WITHOUT EXTRA COST

With every bottle of Gypsy Fish Bait Oil you'll get free a large waterproof plastic pouch. Ideal for lunches, tobacco, matches, anything you want to keep dry and fresh. Yours to keep even if you return Oil for money back. Mail order today!

SEND NO MONEY–You fish "On-Approval"

Be as skeptical as you like . . . go ahead and say we're crazy. But mail coupon or write for your double size trial of the new improved double strength Gypsy Fish Bait Oil. On arrival put up as deposit $1.98 for one or $4.98 for 3 bottles plus C.O.D. postage thru postman. Use the next time you go fishing and if you aren't delighted return what's left for money back. Send cash and we pay postage. Don't wait. Mail coupon.

HATS OFF TO THE LADIES

"Gypsy Fish Bait Oil does everything you say. Have been fishing Chain-Of-Lakes in Illinois. Have pretty good luck. I caught a 19-inch channel catfish and 1½ pounds bull heads."
Mrs. D. Loring, P.O. Box 352, Elmhurst, Ill.

EXPERT PRAISES GYPSY

"I have used Gypsy dope bait for 3 years and have made wonderful catches of smell-feeding fish. Both in fresh water and on deep sea trips. It is a pleasure for me to recommend Gypsy Fish Bait Oil and your company to all my friends."
Henry D. Martin,
35 Roseway St., Jamaica Plain, Mass.

RESULTS FANTASTIC

"The results after using Gypsy Fish Bait Oil were fantastic. I caught more and larger smell-feeding fish than ever before and I have fished this same pond many times."
Mr. Ed H. Lewis, Manager
Chamber of Commerce
Roanoke Rapids, N.C.

MORE LADIES USE GYPSY THAN ANY OTHER SCENTED BAIT "I am enclosing a check for 3 more bottles Gypsy. I have tried it and it is very good."
Mrs. Ruth H. McCarty, Dubay Colony, R.D. #1, Dancy, Wisc.

MAIL THIS COUPON TODAY

WALLING KEITH CHEMICALS, INC., DEPT. 437-H
Birmingham 1, Alabama.

☐ Send one bottle double strength Gypsy Fish Bait Oil and Free Fisherman's pouch. I'll pay $1.98 plus C.O.D. postage on arrival on guarantee I can return Gypsy after first test trial for money back and keep pouch for my trouble.

☐ Send 3 Gypsy (3 Free Pouches) . . . $4.98 ☐ Remittance enclosed. Send postage paid.

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RAILROAD MAGAZINE

THE MAGAZINE OF ADVENTUROUS RAILROADING—FOUNDED 1906

VOL. 68, NO. 4 JUNE 1957 50 CENTS

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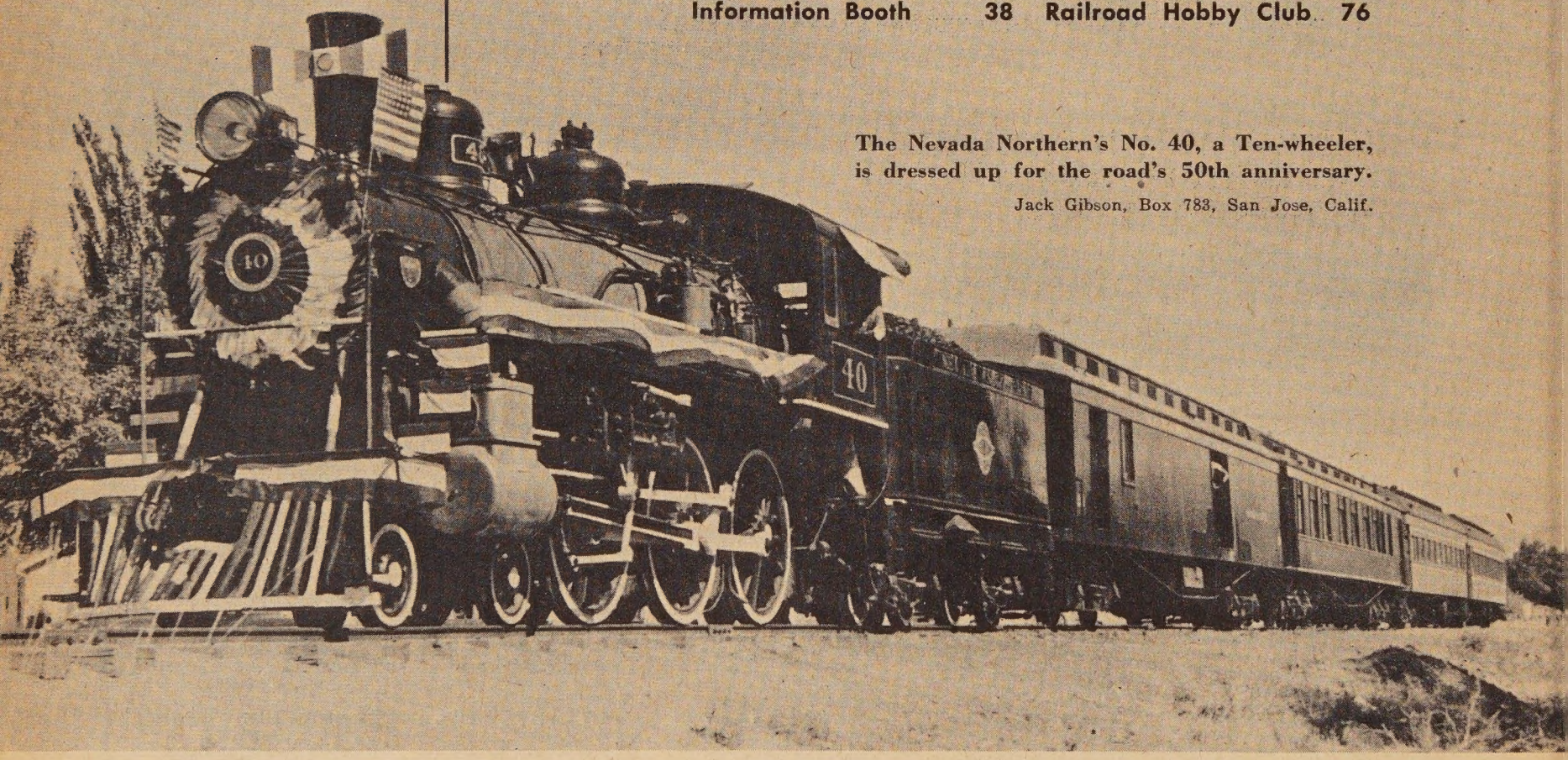

The Nevada Northern's No. 40, a Ten-wheeler, is dressed up for the road's 50th anniversary.

Jack Gibson, Box 783, San Jose, Calif.

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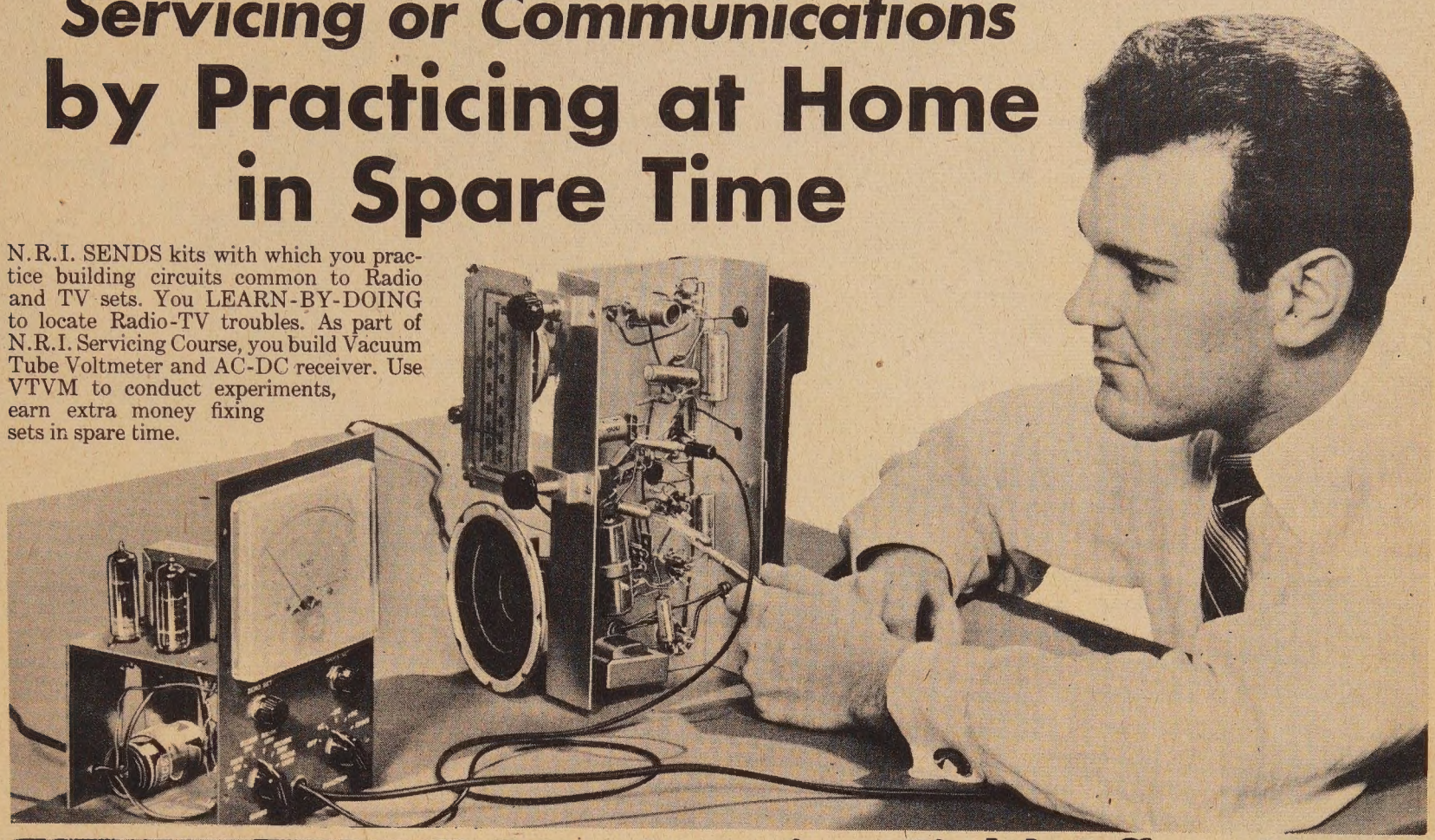
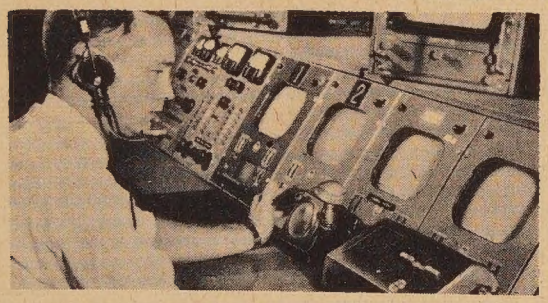
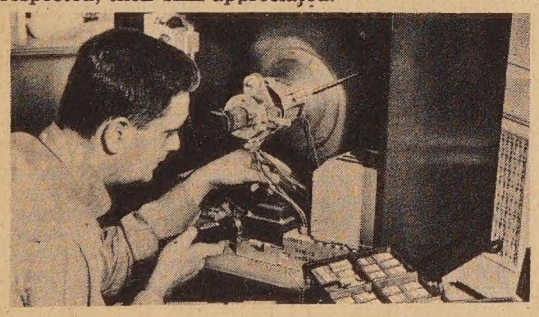




RADIO-TV BROADCASTING (see above) offers important positions as Operators and Technicians. RADIO-TV SERVICING Technicians (see below) needed in every community. Their services are respected, their skill appreciated.



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"Doing spare time repairs on Radio and TV. Soon servicing full time." CLYDE HIGGINS, Waltham, Mass.

"I had a successful Radio repair shop. Now I'm Engineer for WHPE." V.W.WORKMAN, High Point, N.C.

"There are a number of NRI graduates here. I can thank NRI for this job." JACK WAGNER, Lexington, N. C.

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MAIL CAR

Running Orders, Waybills, and Sandhouse Gossip from Railroaders, Fans, and the Editorial Crew

RUTLAND RAILWAY, the subject of our lead feature in this issue, is doing fine, thank you. Last year it made $452,816 profit, a far cry from two years ago when it was solidly in the red. ●

WHERE is Thomas Carter Stanley? Tom worked for the Southern Pacific in Los Angeles during the fall and winter of 1955-'56. Then he took a telephone company job in San Francisco and joined an electric railfan group there. In March '56 he mysteriously disappeared. Maybe a victim of an accident or foul play. Maybe he took a long wanderlust tour.

Thomas

Tom was then 19, six feet two, about 170 pounds, light brown hair, blue eyes, a high-school graduate with a yen for railroads, science, and math. News of him will be appreciated by his parents, Mr. and Mrs. Carter Stanley, 3600 S.E. Lake Rd., Milwaukie, Ore. ●

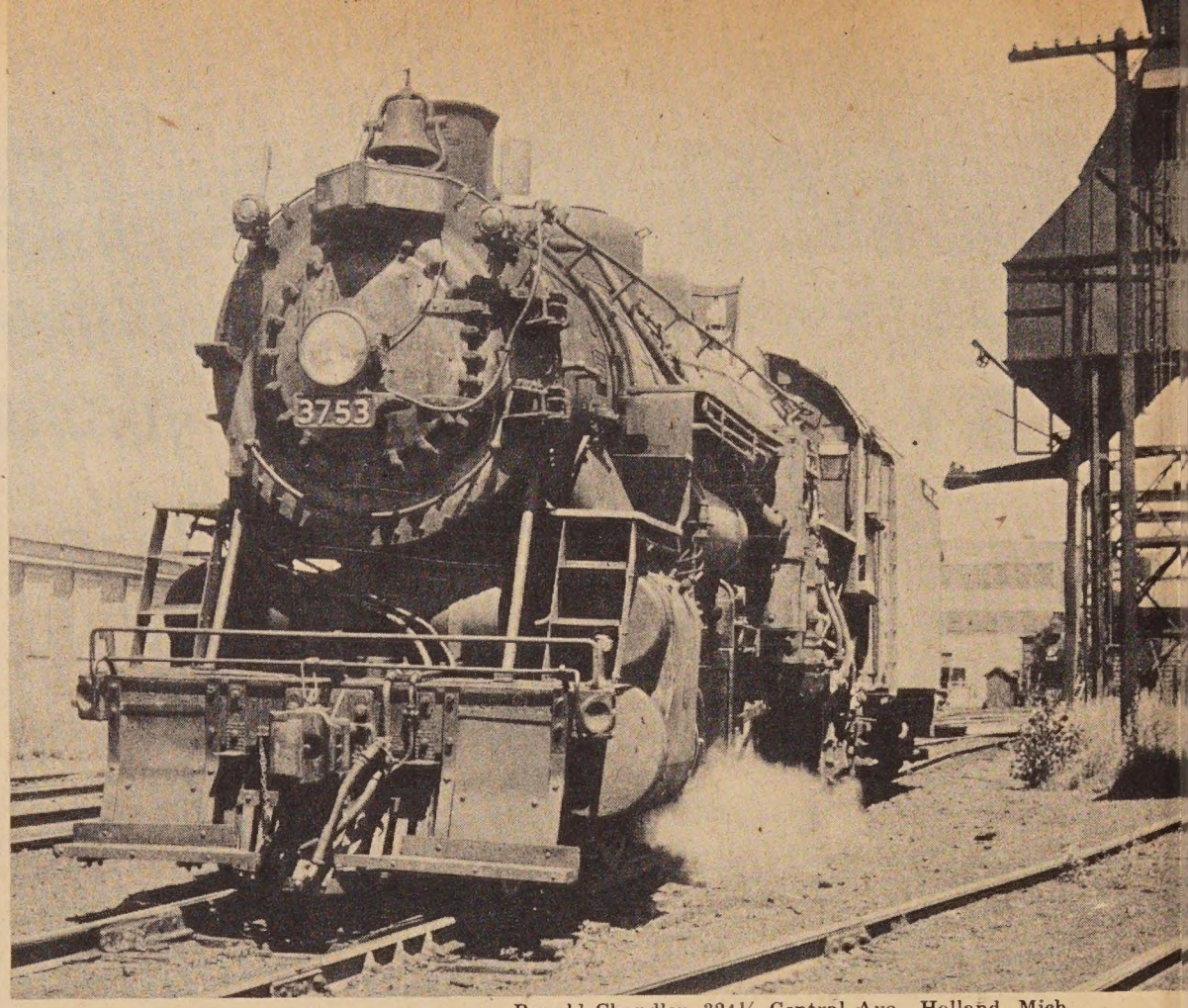
SY REICH, our new *Railroad Hobby Club* editor, has been a serious railfan for as far back as he can remember. "When I was a mere tot," he says, "my parents would read me railroad books instead of fairy tales. At the ripe age of eight I bought my first copy of *Railroad Magazine*, and have been devouring this publication ever since.

Sy Reich

"Later, I began exploring the more than 700 miles of New York City subway and el lines. My current project is research into their history. I am fascinated by the material I find in old files and drawings of the Board of Transportation, the Public Service Commission, etc."

More so than most fans, Sy Reich is interested in railroad engineering as well as operation—for example, in the design and construction of diesel locomotives and signal equipment.

Sy is also a camera fan. His photographic jaunts take him out on the road in search of little-known short lines and all kinds of engine terminals. He supplied some of the photos used in our "Third Avenue El" article a year ago. Sy is also represented in our current issue on page 65. ●



Ronald Chandler, 324½ Central Ave., Holland, Mich.

Grand Trunk Western still has steam power. Mikado No. 3753, Class S-3-c, arrives at the Muskegon, Michigan, yards with local freight train and waits for servicing.

MEET Pearl White, 17-year-old daughter of Robert E. White, Grand Trunk section foreman and contributor to *Railroad Magazine*. Pearl has always been a railfanette. Her Dad saw to that. Even when she was a wee bairn he'd take her down along the tracks to familiarize her with railroad equipment.

Pearl White

"I found it exciting," she tells us, "to ride his section car. As I grew older I traveled on passes into Canada and Mexico and other places. Dad loves the old steam engines, but teen-agers like me prefer new and modern things, including diesel-electrics."

Pearl lives with her parents at 514 N. 5th St., Grand Haven, Mich. She is editor-in-chief of her high school paper and will major in journalism when she enters college this September.

Bob has just written an article on the increasing use of power machines in trackwork, which he calls, "Goodbye, Gandy Dancers!", coming in next issue. We think you'll enjoy it. Meanwhile, as a tribute to Pearl we are reprinting an old poem by Hugh Owen O'Neil entitled "The Section Boss's Daughter."

SOMEWHERE the sky is bluer
Than it ever used to be,
And the golden sunshine brighter than before;
And although we burst an airhose
When we're halfway up the hill,
It doesn't seem to matter any more.
Somehow it doesn't matter
If we don't get in on time,
Somehow the long and heavy grades
Are easier to climb;
Somehow life's little troubles
All have drifted far away—
Since the section boss's daughter
Smiled at me the other day.

There's just a little shanty
Where the old hand-car is kept,
And nearby a cottage close beside the track,
With the rambling roses climbing
'Round the windows and the doors,
And a little kitchen garden at the back
Where the section boss at evening,
With a trowel, rake, and hoe,
Works among the green things growing
In each little patch and row,
And I thought it plain and prosy
As a section house could be—
Till the section boss's daughter
Smiled and threw a kiss to me.

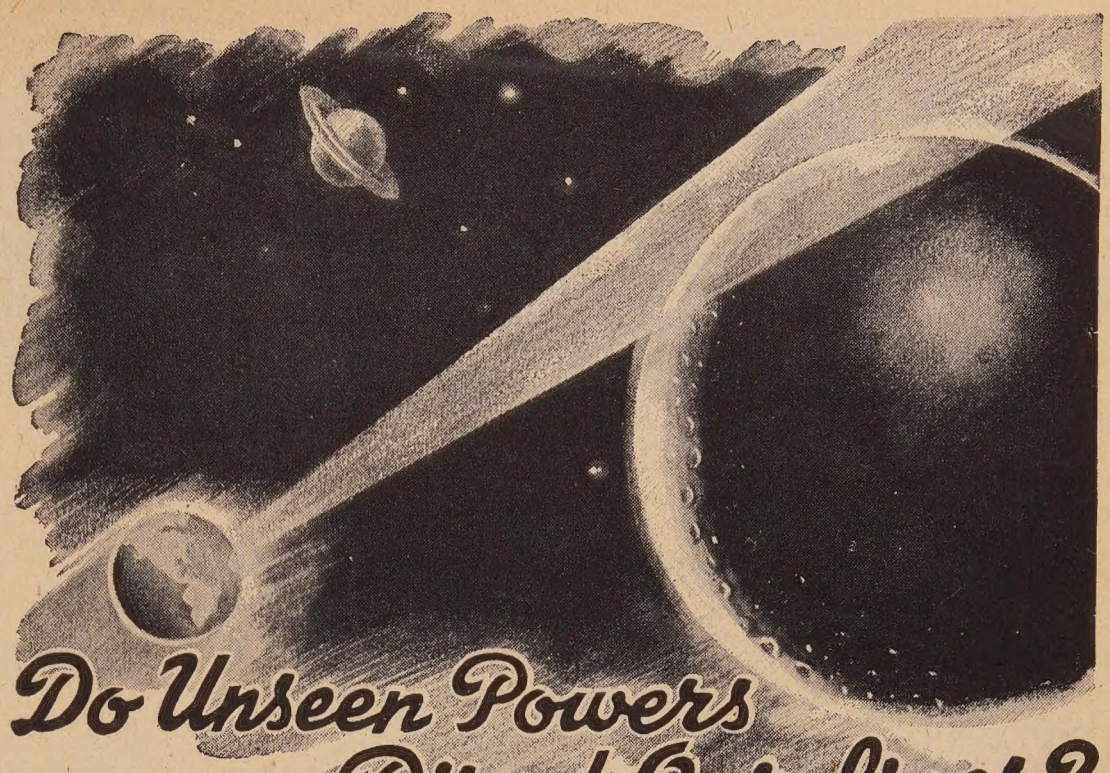
Somehow the run seems shorter
Than it ever was before;
The mileposts aren't quite so far apart,
And the hour hand runs faster
'Round the dial of my watch
Since the section boss's daughter won my heart.
For the gleaming of the lovelight
In her glances and her smiles
Lightens all the dreary labors,
Shortens all the lonely miles.
And so it will be always
As we doublehead through life,
For the section boss's daughter
Promised she would be my wife. •

HER father, C. L. Stanford, is a train dispatcher on the Gulf, Mobile & Ohio and her mother is a former GM&O clerk, which makes Miss Rose Stanford a real daughter of the rails. Rose herself is a freshman in Mississipppi Southern College at Hattiesburg, majoring in voice, with musical comedy ambitions. She lives at 724 Oak Drive, Laurel, Miss. She sings, dances, swims, engages in amateur theatricals, and has won two beauty and personality contests.

Rose Stanford

Two of her relatives are trainmasters. An uncle, H. Q. Leeke, is the GM&O agent at Newton, Miss. Years ago, when he was telegraph operator at Pontotoc, a strange character entered the depot with his wife and 12 children and bought tickets for them to ride *The Rebel.* The man carried a churn full of kraut on his shoulder, explaining that he was taking it along for the family to eat on their trip to Arkansas.

"My uncle taught my father telegra-



Do Unseen Powers Direct Our Lives?

ARE THE TALES of strange human powers false? Can the mysterious feats performed by the mystics of the Orient be explained away as only illusions? Is there an intangible bond with the universe beyond which draws mankind on? Does a mighty Cosmic intelligence from the reaches of space ebb and flow through the deep recesses of the mind, forming a river of wisdom which can carry men and women to the heights of personal achievement?

Have You Had These Experiences?

. . . . . that unmistakable feeling that you have taken the wrong course of action, that you have violated some inner, unexpressed, better judgment. The sudden realization that the silent whisperings of self are cautioning you to keep your own counsel — not to speak words on the tip of your tongue in the presence of another. That something which pushes you forward when you hesitate, or restrains you when you are apt to make a wrong move.

These urges are the subtle *influence* which when understood and directed has made thousands of men and women masters of their lives. There IS a source of intelligence within you as natural as your senses of sight and hearing, and more dependable, which you are NOT using now! Challenge this statement! Dare the Rosicrucians to reveal the functions of this Cosmic mind and its great possibilities to you.

Let This Free Book Explain

Take this infinite power into your partnership. You can use it in a rational and practical way without interference with your religious beliefs or personal affairs. The Rosicrucians, a world-wide philosophical movement, *invite you* to send today for your *free* copy of the fascinating book "The Mastery of Life" which explains further. Address your request to: Scribe Y.D.A.

The ROSICRUCIANS
(AMORC)
San Jose, California
The Rosicrucians are not a religious organization

USE THIS COUPON

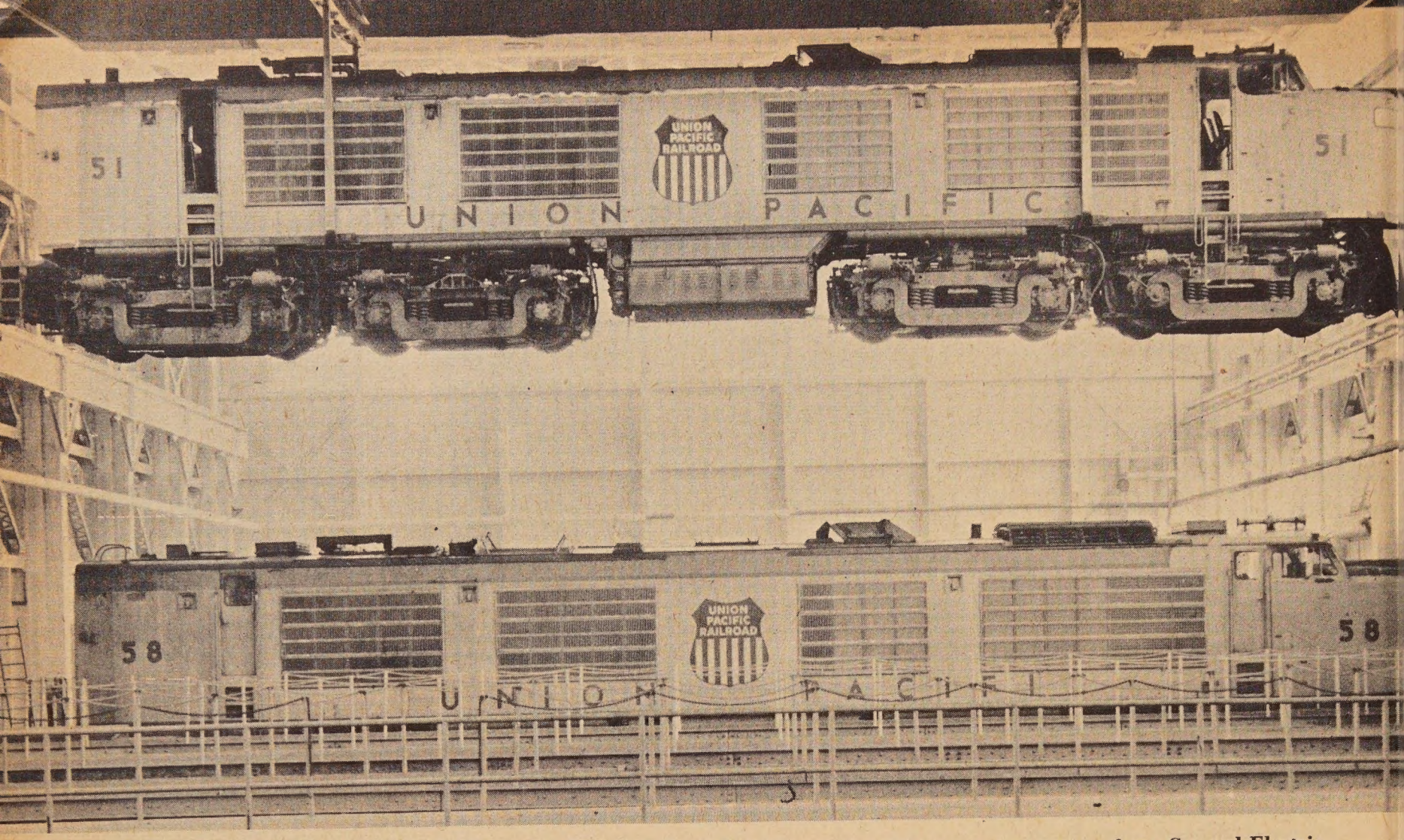
Scribe Y.D.A.
The Rosicrucians, AMORC,
San Jose, California.

I am sincerely interested in knowing more about this unseen, vital power which can be used in acquiring the fullness and happiness of life. Please send me, without cost, the book, "The Mastery of Life," which tells how to receive this information.

Name _____

Address _____

State _____



The Union Pacific has just ordered a second group of fifteen 8500-hp. gas-turbine-electric locomotives from General Electric, adding to the 15 ordered last November. This new type, according to the UP, will be the world's most powerful locomotives. Geared for freight service, they will have a top speed of 65 mph. The road has had 25 smaller gas-turbine-electric units, each rated at 4500 hp., in service for years and now hauling one-tenth of the UP's total freight tonnage. Photo shows two of the 4500-hp. locomotives at the Salt Lake City diesel shop. One is held aloft by a gargantuan 270-ton Whiting crane.
Union Pacific Railroad

phy," says Rose. "Father began railroading at Ripley, Miss., in 1923 and became a train dispatcher 18 years later. He has worked in many towns. Since 1951 he has held the first trick at Laurel, a town which unhappily has no railroad passenger service."

One of Rose's kinfolk was Isaac B. Tigrett, who expanded a 49-mile "wooden-axle pike" into the 3,000-mile GM&O system and who, at the time of his death not long ago, was America's oldest railroad president. "Grandma," she says, "was a Tigrett." ●

NEW train, the *Dan'l Webster,* is now being operated by the New Haven between New York City and Boston. It's lightweight, with a low center of gravity, and double-ended, and powered by a combination of direct diesel drive plus the ability to pick up power from third-rail for electrical propulsion.

This is the first of three lightweight trains ordered by the New Haven. Historically, the name *Dan'l Webster* would better fit an Erie train. Daniel Webster was guest of honor on the Erie's first passenger train from New York to Buffalo in 1851. He rode a flatcar, seated in a firmly-attached rocking-chair. This gave him a perfect view; but Webster, being a politician, was less interested in landscape than he was in being seen by the trackside crowds. ●

NEWS BRIEFS. What won't publicity men think of next? The C&EI recently put on a fashion show aboard its Chicago-Miami streamliner *Dixieland.* Half a dozen shapely models cavorted through the stainless-steel cars in revealing swim suits. When you ride a train these days, to quote a Bedwell story title, "Anything's liable to happen."

The Milwaukee Road roundhouse at Aberdeen, S. D., which had stalls for 30 steamers, has just been razed, reports Thomas Manchester, retired locomotive engineer.

After 29 years of construction, Iran has just completed the 729-mile railway linking its capital, Tehran, with Meshed. Oil financed the job.

A survey of *Southern Pacific Bulletin* readers shows a predominant interest in news of SP operations and improvements, followed by historical and human-interest articles and photos, with everything else in the *Bulletin* also-rans.

Rhode Island's shortest railway, the 1.3-mile Warwick line, wants to shrink its trackage to about one mile, reports Roger Breslow, Providence, R. I. Its Pawtucket River trestle is unsafe, so the road aims to abandon the trackage beyond it.

The Soviet Union announces that hereafter it will build no more steam locomotives, only diesels and electrics.

Gilbert Burck, former associate editor of *Railroad Magazine,* had an article in January issue of *Fortune* entitled "The Great U.S. Freight Cartel," telling how the public could benefit from lower transportation costs if Congress would follow the President's Cabinet Committee Report on Transportation.

There was many a tearful eye, reports

the Canadian Pacific *Spanner*, when the old Dominion & Atlantic recently made the last regular run of a steam-powered passenger train in Nova Scotia.

Each year Michigan Railroads Asso. picks a man to honor as "Michigan's most civic-minded railroad employe." This year they chose Leo W. Benjamin, New York Central agent at Eaton Rapids, Mich., for his leadership in such projects as erecting and financing a community hospital and sponsoring a "Teen Kanteen" that has paid off, and sports for the town's juveniles.

Two miles south of Chapman, Ala., on a main highway, the W. T. Smith Lumber Co. has a 4-4-0, No. 14, and a Mogul, No. 7, on permanent display, reports Thomas Lawson of Birmingham. As we go to press, the company is tied up by a strike but it normally is still using several Moguls on its logging trackage.

PS Troubadour, a Shorthorn calf, is making a four-months tour in his private chariot, a converted Chesapeake & Ohio baggage car. PST is no ordinary calf. He's worth $20,000. His original owner, C&O board chairman Cyrus Eaton, sold him to President Eisenhower's brother Milton. And then, at Chicago, he was crowned International Grand Champion Steer of all breeds. He is now seeing America by rail.

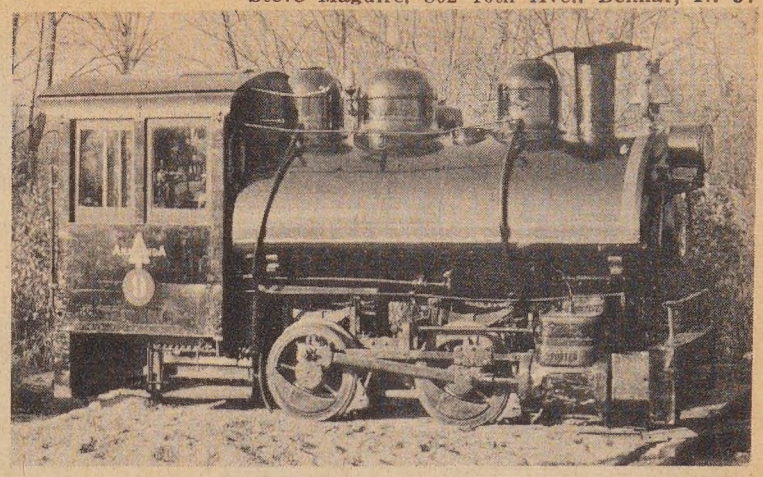
New York Central is building two new electronic yards to cost a total of $21,000,000, one at Elkhart, Ind., and the other at Youngstown, Ohio. When completed, we are told, they will be the world's most modern push-button railyards. A third great automatic yard is nearing completion at Buffalo, N. Y.

In Arizona's famed Apache land, two Fairbanks-Morse diesel locomotives are helping a large pine producer to move some 79 million feet of logs annually. A subsidiary of Southwest Lumber Mills, Inc., the Apache Railway runs a winding course of 68 miles through sleepy meadows and up steep grades into high country. The diesels make more than 600 round trips a year. One lumber mill is located in the Indian Reservation.

Of the Decapods built for Russia but never sent there—mentioned in *Railroad Magazine* recently—five are now working for the Eagle-Picher Mining Co. near Miami, Okla., reports Candy McCarthy, Springfield, Mo. These five

(Continued on page 70)

Steve Maguire, 802 10th Ave., Belmar, N. J.



Old Anaconda Company's No. 9, from Perth Amboy, recently added to roster of Pine Creek Railroad (see page 77).

FREE BOOKLET and Job-Getting Secrets

This CONSERVATIONIST can help YOU become a

GAME WARDEN, FOREST RANGER, FISH HATCHERY MAN...

OR SECURE EMPLOYMENT WITH A PRIVATE FUR, FISH OR FORESTRY COMPANY!

Meet Jim Allison, one of our personal counselors, who'll work hard for you if you're *seriously* interested in career conservation. Jim's a well-known outdoor writer. He lives on a Wyoming ranch, spends his time writing various wildlife departments . . . helping men like yourself locate rewarding wildlife positions. If you live only for those glorious days afield; if you *believe* in conservation; then why not use your spare-time to prepare NOW, at home, for a challenging outdoor job? It's easy, fun, enjoyable as reading your favorite sports magazines. Opportunities have never been greater – almost *regardless* of your age or education. We've helped many others. Now, let Jim Allison and Home Study Educators show *you* the way, too!

What other Career offers so many of the really Important things in Life?

NO SPECIAL TRAINING REQUIRED. Hunting, farming, military service, common skills – all help to get *most* outdoor jobs. Positions open to men 17 to 45, most states.

HEALTHFUL WORK. The sense of well-being you enjoy on vacations and outings may be yours *all* the *time*. Say goodbye to "city tensions" and a humdrum job. Live *better, longer* . . . raise your family in health and happiness.

GOOD PAY, SECURITY. Start at up to $3000 yearly, enjoy fair play, regular raises. Work toward a $6000 to $10,000 position. Benefit from low cost housing, retirement income, many other advantages!

PRESTIGE. Command the respect of others! Your uniform symbolizes the vigilance needed to conserve America's precious natural resources!

Join these Men whom Jim Allison helped!

"Tremendously helpful. I am now employed by U. S. Dept. of Agriculture, Forest Service." **Jess Snyder, Ohio**

"I have secured a job as a Foreman with the Conservation Dept. I am assigned to the Game Division – Thanks for everything." **Britten Graham, Mich.**

"Thanks for assistance in attaining a better position with the Game Commission . . . was given a promotion, a raise, and supervision of 5 men." **C. G., Neb.**

Game Warden says: "I have never read or seen anything that gives a man such a wonderful background on job opportunities in this field . . . should prove of great value to anyone wanting (an outdoor job)." **J. F. C., Game Warden, Minn.**

HELP FILL THE NEED FOR *Qualified Career Conservationist!*

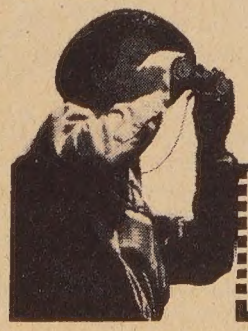
Make the "great outdoors" your business! With states spending more conservation funds than ever, career opportunities are booming! We are not govt. sponsored, but dedicated to helping conservation-minded men prepare for and locate the following positions:

GAME WARDEN. You'll protect wildlife, apprehend law breakers . . . supervise refuges, feeding stations, make game counts, etc. Start at up to $3410 a year. Prepare NOW, at home!

FORESTRY. Work amid towering timber, crystal clear mountain streams. Protect trees against fire, insects, diseases . . . supervise patrols. Beginners often earn $300 per month. Prepare now—at home!

GOVT. HUNTER. Hunt and get *paid* for it! Control mt. lions, coyotes, wolves, etc.—earn up to $150 bounty per predator, *plus* salary. $750 monthly possible. Here, it's hunting "know how" that counts.

HATCHERY WORK. You'll artificially propogate game fish . . . stock lakes, streams . . . keep growth records, etc. Start at up to $300 per month, earn about $700 as foreman. Prepare now—at home!



PRIVATE FISHERIES, GAME FARMS. Qualified employees are urgently needed at private game farms, preserves, trout pools, etc. Above average salaries. Prepare now—at home!

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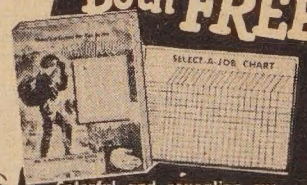

Colorful and revealing success booklet. Explains all job-getting facts plus how to get free "Select a Job Chart." Lets you match your background, education, interests, etc. against many fascinating outdoor job opportunities.

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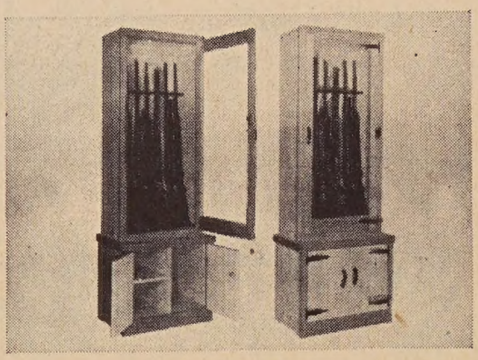
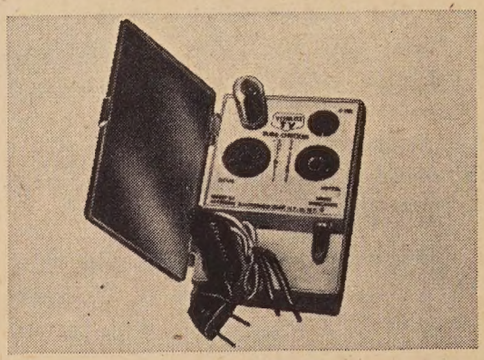
"This hair formula has actually stopped falling hair and has grown full new hair on bald and balding heads, say many, but not all of my clients. I and doctors with whom I have discussed it believe that the activating ingredients were produced by nature. In 1950, the 15th year of my experiments, a solution in my laboratory produced a culture of air borne mold similar to those which produce penicillin and other antibiotics. 'To my amazement this formula completely eliminated dandruff and itchy scalp and grew hair where it has long been balding,' writes one user. My formula and scalp treatment involve no oils, heat or odor. Application and morning hair combing may be done at the same time. My treatment cost $10 postpaid for an 8 week supply with instructions. If you prefer to read more about this formula, send your name and address for absolutely free information. I believe that my formula in some way assists nature in restimulating growth of hair. I hope you will experience the happy results that so many of my clients have written and shown me."

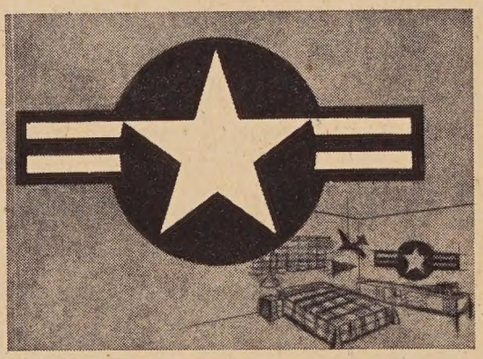
WALTER FIELD Dept. 5
6399 Wilshire Blvd. Los Angeles 48, Calif.



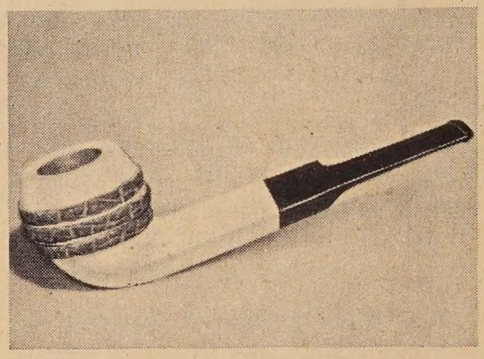
Handsome "Gunberth" above is easily made, provides a practical cabinet for your own arsenal. Plans are carefully drawn up. Finished product holds up to 7 guns, has ample space for scope-mounted rifles. The barrel spacing nocks are designed to be self-centering and will place most rifles and shotguns. Plans, $3.50 ppd. Order from Coladonato Bros., Box 156, Hazleton, Pa.



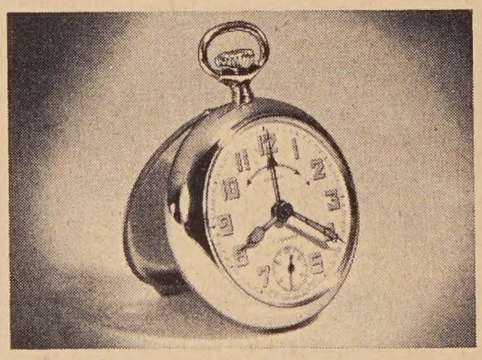
A new version of a very useful instrument, this TV and radio tube tester will test *all* tubes right up to the picture tube, save you enough dough the first time to more than pay for what a repairman would charge for a house call—and the first thing he'd do is check the tubes. Also checks continuity in electrical appliances. $3.95 ppd., and worth it. Chabon Scientific, 60 E. 42nd, N.Y.



Air Force veterans in the audience will recognize this giant-sized (5½ ft. x 3 ft.) insignia which has been mounted on thousands of planes. Strong, and with the feel of oilcloth, they cost the government some $18 each. Now, should you want one to decorate your boy's room, your basement, den or game room, they are just $2 ppd. New surplus. Kline's, 329 East 65th St., N.Y.



An unusual pipe, this one is called the White Hunter and has the famous Sval concentrically fluted Mediterranean briar bowl. Highly polished in lacquered white, it's ribbed with 3/16″ of thick rhinoceros hide fitted into V cut air pockets. With saddle bit, aluminum filter. Comes for $7.50 ppd. You can order from Ernest de Koven, Box 5, Centuck Station, Yonkers, New York.

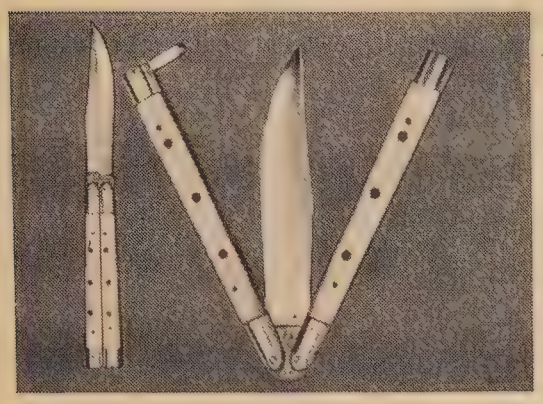


A pocket alarm watch makes a useful gift for any man. This fine 7-jewel Swiss-made one can be set on the quarter hour, rings with a sharp, clear tone. Back opens to form a stand, makes watch double as a desk or night-table clock. Second sweep, luminous dial, hands. Excellent buy for $13.95 ppd., size makes it handy for business or sportsmen. Prince Enterprises, 103-Y Park Ave., N.Y.

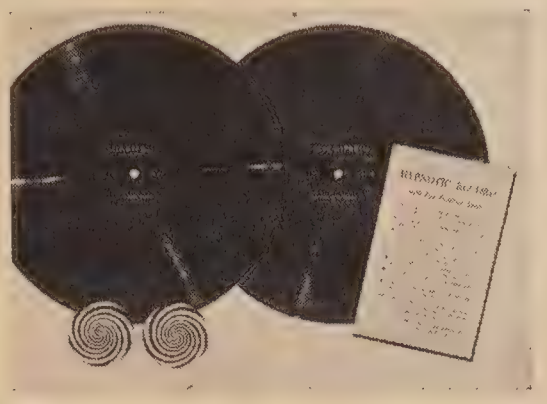
What with the package-sending season just about here, this little rubber stamp can save you a lot of time and trouble. Actually, it's twelve stamps in one, and contains all the proper sayings so that the post office can handle your packages properly. If you went out and bought them individually, you'd spend $10. This one's $2 ppd. Lord George, Ltd., 1270 Broadway, N.Y.

SHOP BY MAIL

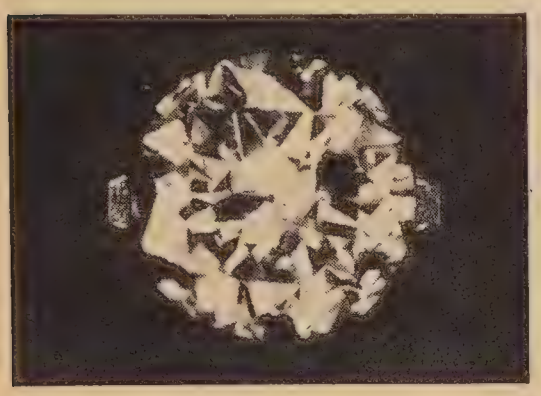
All products shown here may be obtained directly from indicated sources. Send check or money order with your order. Manufacturer will refund full purchase price on prompt return of unused, non-personalized items. This department is not composed of paid advertising.



You don't see these unique knives very often—the Filipino Balisongs. Imported from the Philippines, it has a 4½" hand-forged, edge-holding blade that folds swiftly out of its twin bone handle. Any GIs in the audience who were stationed in the Philippines will remember the dexterity with which the natives used it. 9½" overall. $4.95 ppd. from J. D. Clinton, Mt. Clements, Mich.



For those interested in hypnotism—a record with details for hypnotizing individuals or a group, as well as suggestions for self-hypnosis. Record has echo chamber Metronome background. It comes complete with eye-fixation spots. Unbreakable, extended play 10", 78 rpm recording. Complete, it's $4.95 ppd. Order from Hypnotic-Aids Recordings, Dept. AY-3, 30 E. 20th St., N.Y.



This, as you probably recognize, is a fairly sizable diamond, and should you be interested in purchasing one you can get a catalogue of 'em free by writing Kaskel's, Dept. 704-C, 41 West 57th St., New York 19, N. Y. The catalogue covers information about diamonds in general, rings, pins, bracelets and other geegaws in particular. Prices range from $25 right on up to $5,000.

There's a lot of stamps in the above photograph—500 to be exact, although some are covering others. They're from all parts of the world, include the Monaco Grace Kelly wedding stamp, 4 Roosevelt memorial stamps from 4 countries, the only triangle stamp ever issued by the U.S., and others. With literature, stamps on approval, $1 ppd. Globus Stamp, Dept. 55, 268 4th Ave., N.Y.

$250,000 went into the engineering of this self-contained push-button pocket recorder used in police work all over the world. Fine German craftsmanship has made it a record-erase-playback unit small enough (3¾ x 6¾ x 1¾") to fit in coat or pants pocket. It weighs less than 2 lbs., has a 4 hour spool, runs on batteries or electricity. Records conversation or music anytime, anyplace, without anyone knowing it. Records through plastic mike (1), well-detailed dummy wrist watch mike (2), tiny mike with suction cup (3) that fastens on telephone, records two-way conversation without telltale blips. Plays back through stethoscopic type earphones (4), radio or phonograph with attachment (5). About $289.50. For full information: Lincoln Electronics, 1305-A Lincoln Bldg., N. Y. 17.

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DR. PHILIP'S PIPE is the best!

- NO BREAKING IN!
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SHORT SMOKE MODEL ONLY $4.50
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(Both come with extra bowls)

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Please send me postpaid....DR. PHILIP'S pipe(s). I enclose $.....to cover the cost of the pipe(s) I have checked below:
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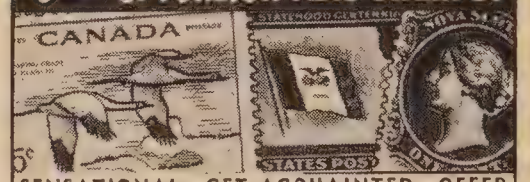
Free! NORTH AMERICA plus 87 FOREIGN FLAG STAMPS!



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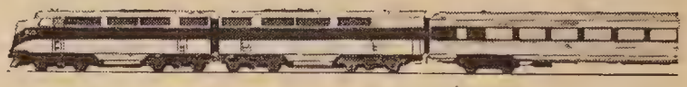


3% tax on freight charges...

You should have relief from the burden of these World War II taxes—now!

During World War II the Federal Government imposed special excise taxes on the passenger fares and freight charges you paid to railroads and other common carrier transportation. One reason for these special taxes was to discourage the use of these transportation facilities in wartime.

World War II is long since over but these taxes go on – and on. You are *still* paying them. On nearly all intercity tickets, they add an extra 10 per cent to the fare you pay. And as goods move through the processes of production and distribution, they add 3 per cent to the freight charges at every stage of the movement.

These burdensome and discriminatory taxes are still discouraging the use of our public transportation systems. And by so doing, these taxes are weakening our public carriers—essential to peacetime commerce and vital to national defense.

ASSOCIATION OF
AMERICAN RAILROADS
WASHINGTON, D. C.

Photos of the Month

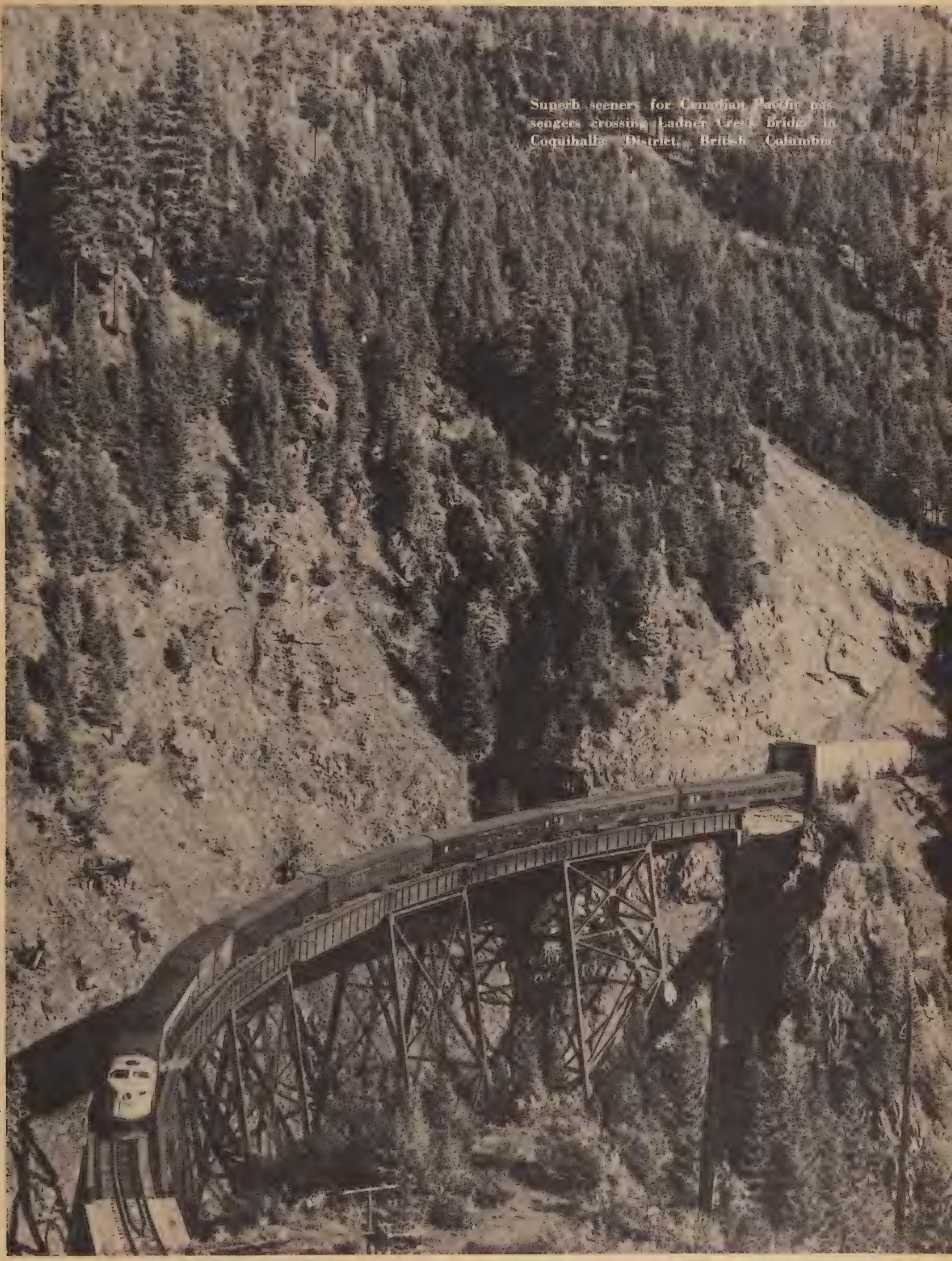
Town of Osage City, Kansas, exemplifies the nation's drought crisis. A year ago the local reservoir ran dry. Then the 2,250 residents used water hauled from the Marais des Cygnes River until that supply gave out last fall. Now the thirsty people depend upon Santa Fe tank cars, which bring in 110,000 gallons of water a day from Topeka, 35 miles away.

Santa Fe Railway

Mrs. Muriel F. Kelso, 6602 6th Ave., Los Angeles, Calif.

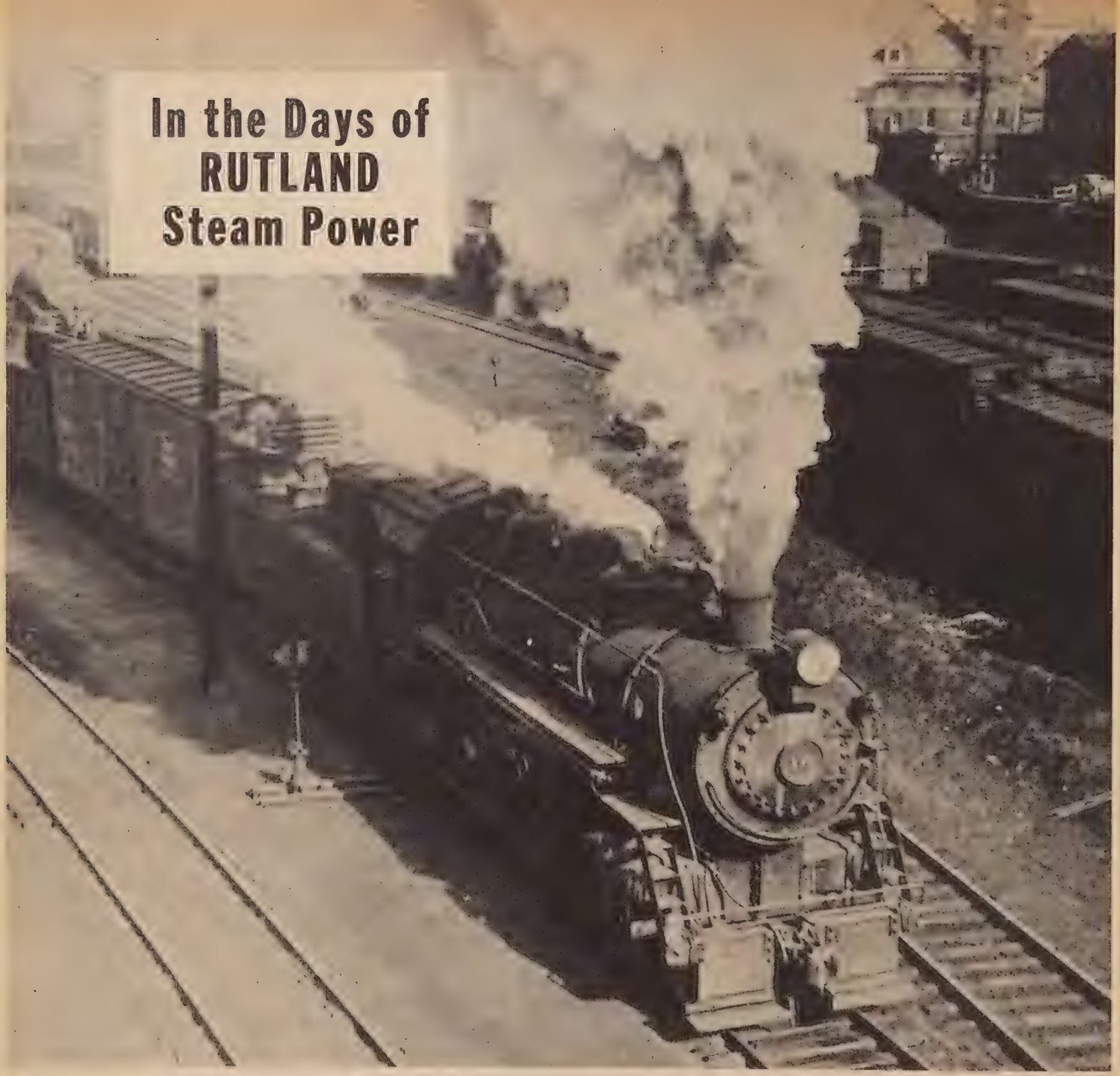
Billowing smoke plume from Southern Pacific's No. 4445 at San Luis Obispo, Calif., on a summer day in 1955.

Nicholas Morant, Canadian Pacific Railway



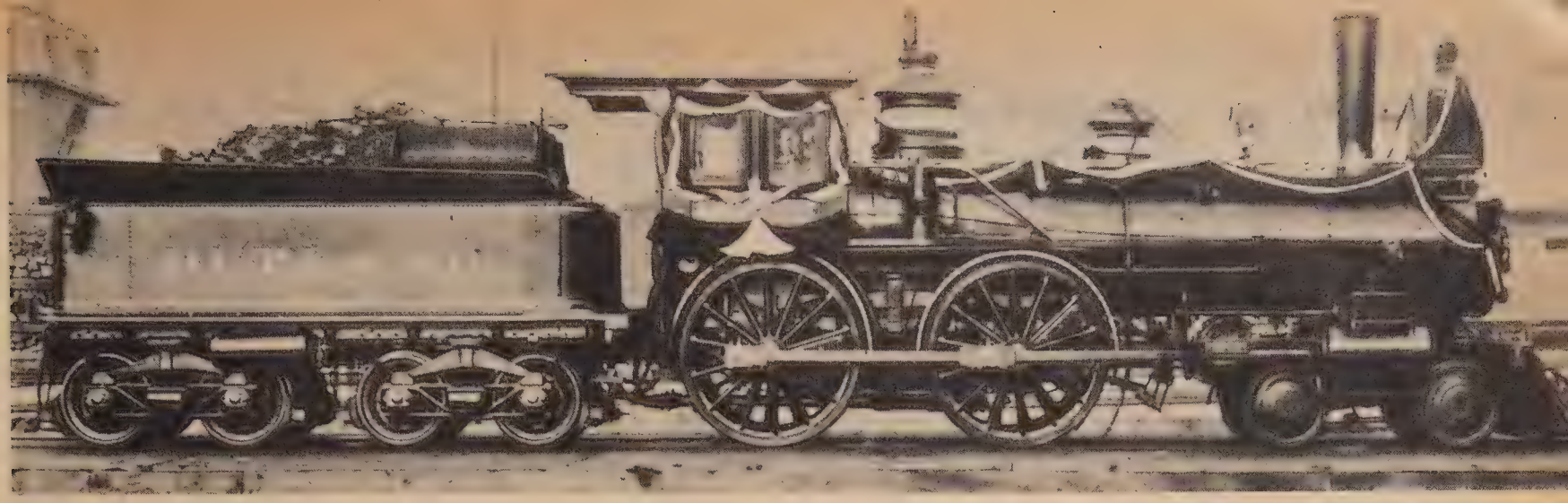
Superb scenery for Canadian Pacific passengers crossing Ladner Creek bridge in Coquihalla District, British Columbia

In the Days of RUTLAND Steam Power

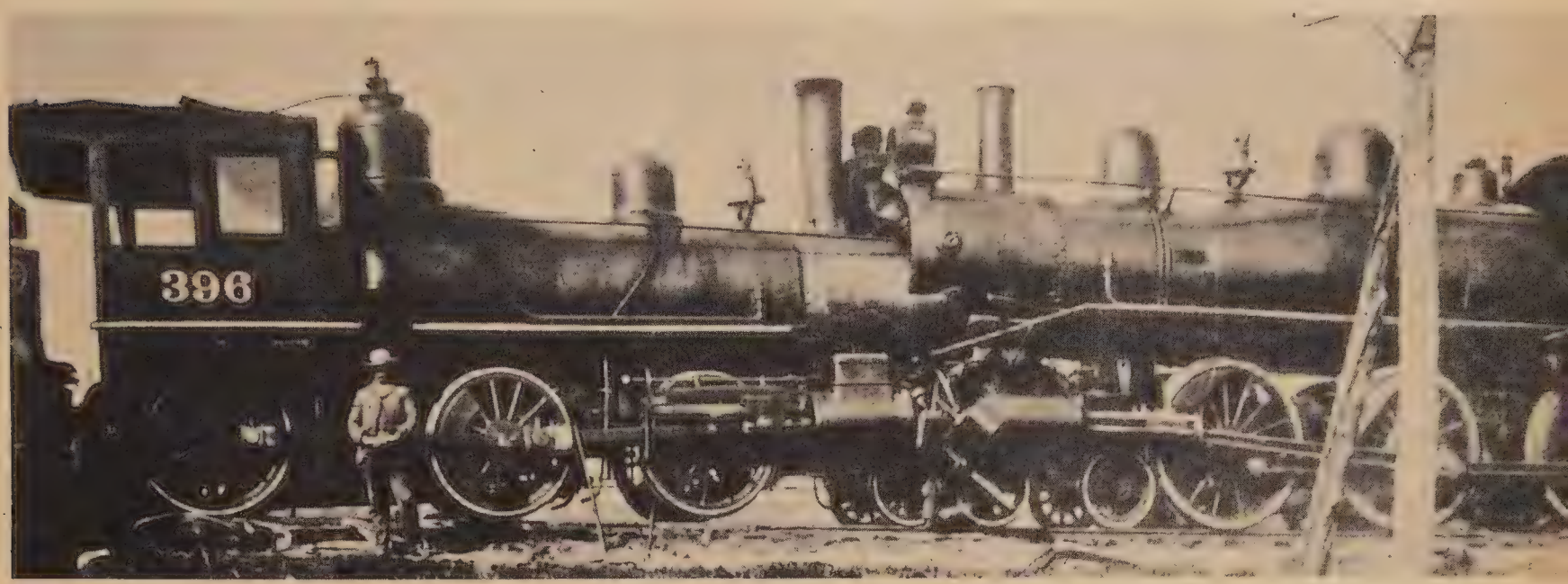


Rutland, Vt.: 0-8-0 switcher No. 106, Class U-3, Alco-built in 1918, marshals string of freight cars into siding.

No. 106, Class B-2c, Alco-built in 1914, makes up passenger train at Rutland for 52-mile run to Bellows Falls.



The *J. Burdett*, named for Superintendent Jesse Burdett, wore black crepe for his funeral at Arlington, Vt., in 1896.



Vergennes, Vt.: Not even the resourceful Rutland could run opposing trains over the same rails at the same time.

No. 18, Class G-34a, Alco-built in 1907, is framed by wreckage of East Creek bridge at Rutland in flood of 1947.

Rutland Railway

The dieselized Rutland train, which skirts Emerald Lake in Vermont follows the trail blazed by the woodburners 114 years ago.
Rutland Railway

Green Mountain Gateway

Chartered in 1843, *the Rutland Has a Sort of Everlasting Quality, With Many Firsts to Its Credit; Today Its Diesel Locomotives Are Wheeling Freight over Tracks Maintained by Big Modern Machines*

by Charles Morrow Wilson

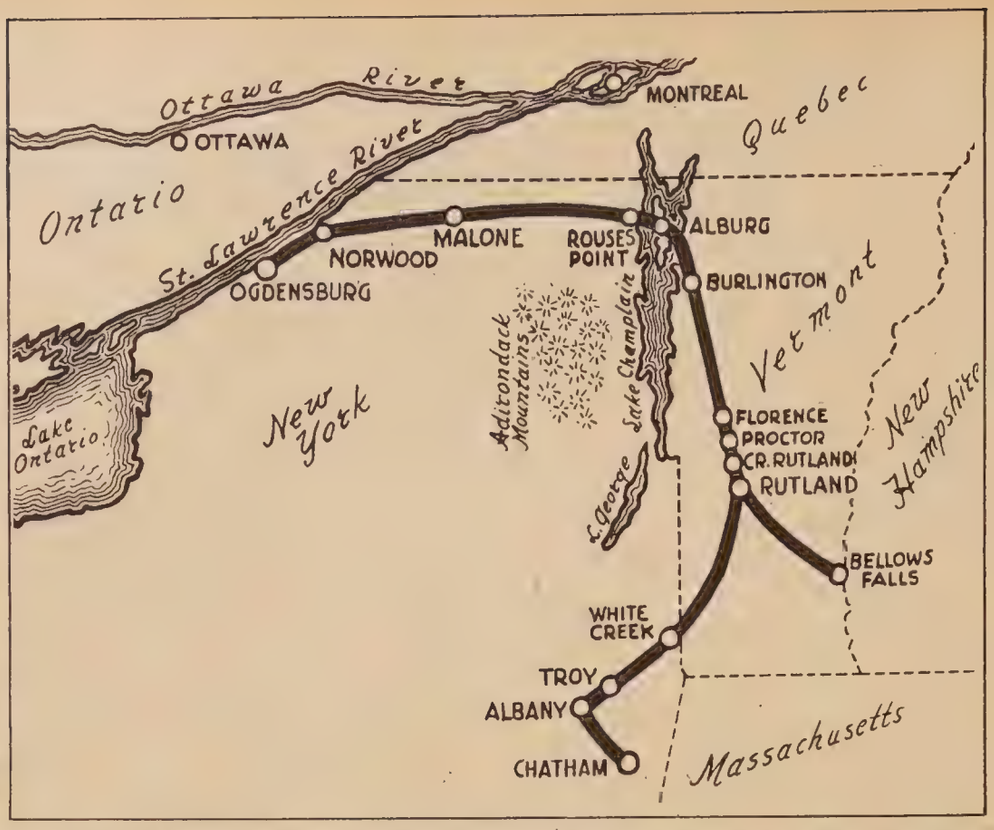
DEEPLY ROOTED in the granite hills of Vermont, the Rutland Railway has a sort of everlasting quality. It was chartered away back in 1843, only twenty years after railroading began in these United States, and yet it's as up-to-date as today's newspaper.

The other day the Atomic Energy Commission faced a tricky job of transportation. A new, king-size, atomic reactor had to be short-routed without delay from the Boston area across mountainous terrain to the Great Lakes. Now, this reactor is not a gadget to carry in your coat pocket. It is one of the heaviest machines on earth. Even when stripped to a minimum, it was something that a dinosaur could have hidden behind. The reactor had to go as an oversize and overweight freight shipment and be given top priority.

Did the Commission ship by motor truck? Like the pig's eye it did! When there is a really big hauling task to be done you naturally turn to a railroad, in this case the Rutland.

One of the knotty problems in shipping an atomic reactor is clearance. Some otherwise excellent railroads fell down there. But the Rutland loaded on the huge piece of equipment and marched across the

Using the bell from No. 98, the road's last coalburner, "Miss Rutland" symbolically rings out the old steam era and ushers in the modern dieselization.
Rutland Railway



The modern-looking office building at Rutland, Vt., is a converted passenger-car shop. The line connects with the New York Central at Malone, Norwood, and Chatham; with the Central Vermont at Rouses Point, Alburg, and Burlington; with the Grand Trunk and the Napierville Jct. at Rouses Point; with the Delaware & Hudson at Rouses Point and Rutland; with the Boston & Maine at White Creek and Bellows Falls; with the Boston & Albany at Chatham; with the Norwood & St. Lawrence at Norwood, and with the Clarendon & Pittsford at Center Rutland and Proctor. Pickup freight business prevails.

countryside with it like a Yankee farmer toting a jug of hard cider. A road that's been handling tough chores for more than a century gets used to doing the impossible.

The Rutland's clearance is only one of its many assets. That road could carry a giraffe standing erect in a tall-sided stock car if it had to. The Atom Boys would not have entrusted their world-shaking and well-guarded metallic monster to the Rutland if its steel pathway through New England and across upstate New York had included a single weak bridge or an under-par roadbed. No, the route had to be tough and enduring—and we couldn't pick two better words to describe the Rutland.

Some Downeasters call it America's toughest railway. Maybe they're right. More than once the Green Mountain Gateway has had to fight for life with its back to the wall. As recently as 1939 the now 114-year-old road was virtually consigned to the junk pile—"permanent discontinuance," to quote the senior member of the then Rutland Crisis Committee—and yet, as any Vermonter could have told you, it was just too tough to die.

Three years ago this Old Man of the Mountains snapped back with a resurgence that made history. It is true that passenger service went by the board—how many larger roads would like to give up their passenger business if they could?—but at least the Rutland is now on the credit side of the ledger. Its mountain-climbing diesels wheel freight eastward through Vermont to Bellows Falls, southward to Chatham, N. Y., and westward across Lake Champlain to the St. Lawrence River, now asparkle with new bridges, hydro-electric plants, and modern factories.

We discussed the atomic reactor with Sid Rogers, the vice president who heads operations. "That shipment," we stated, "was an important *first* in Atomic Age railroading."

"It was just another oversize pick-up," he said modestly. "About 45 percent of our freight volume is pickup."

A roadmaster grinned. "We roughnecks have been first-time Freddies for a great many years."

That is true. The Rutland was one of the first railroads in the country. Practically all of its original 407 miles of main line (now 396 miles, shiny with use) followed ancient Indian trails. Long before Civil War times the Rutland had already scored an impressive number of firsts. It was the first American railroad to mine its own iron, the first to build all of its initial rolling stock, and the first to build and operate a refrigerator car. Also the first to build and operate a saloon car—that one sold applejack across a maple bar. And the Rutland claims to have been the first road to move a train on telegraphic orders, although the Erie sharply challenges this claim, and the *Quiz* book of the Association of American Railroads backs the Erie's version.

In telling the modern success story of the old Rutland we go back eight years to a time when the "Gateway" was in the throes of ICC

hearings, a corporate reorganization, and what the newspapers were calling "another crisis." Its bonds were almost worthless. One of the hondholders was Gardner A. Caverly, an energetic and progressive business man, whose Rutland bonds had a face value of $100,000 but actually were worth about as much as a ham and egg sandwich.

Gardner Caverly was not hard up. But among the many things he couldn't afford was losing $100,000 worth of securities that would be gilt-edged if they were backed by a sound little railroad with real gumption.

One of the schemes being put forward at that time to save the Rutland was a recommendation that it be made a "cooperative railroad." Caverly disapproved. When he showed up at the ICC hearing he was the only creditor present. The plan he presented would set up a voting trust to re-incorporate the Rutland and put it back on its feet.

This idea made sense to the listening trustees and the ICC examiner, and they invited Caverly to serve on the temporary management committee. After that, things began to hum.

The 1200 employes were loyal although their pay checks averaged one-third below the standard wages prevailing on other roads. They kept the wheels turning and the rails from rusting away.

It was plain that the Rutland still had what it takes in basic construction, including roadbed, bridges, clearances, and rails (mostly 105-pound rails), but lacked adequate maintenance. The shippers were mostly friends of long standing, all the way from Miss Peggy Angel, who ships a crate of frying chickens by rail every Memorial Day, to their number one customer, the Vermont Marble Company, dealing in the state's most stable commodity.

Behind them stood the Vermont public, who were, almost to a man, unconquerable Rutland backers. Now, Vermonters are a peculiar race that believes in railroads both as necessities and as institutions to be proud of. They hold that it is more sensible to support your local railroad than to tax yourself till it hurts for the building and maintenance of motor highways.

Mr. Caverly recalled a number of volunteer and spontaneous rallies on behalf of the Rutland. There had been parades, even in the driving rain. That's how Vermonters feel about their railway. Bill Breslin, a switchman, worked on through his eighty-fourth year, not so much to set a seniority record (which he did) but because he felt the road needed him. In the same class is Miss Alice Smith, a sprightly spinster, who stayed on as switchboard operator at headquarters until she was eighty, and for the same reason.

"The road needed me," she said.

Also there were, and are, some unchangeable liabilities. The Rutland is truly rural. Only three towns on its main line have more than 15,000 people; all the towns put together wouldn't make up a city as big as, say, Manchester, N. H. The countryside never could originate enough freight to "carry" the line. Pickup business is essential.

But all connecting lines from the New York Central to the Boston & Maine actually short-haul themselves every time they deliver freight to the Rutland. The Gateway is obliged to dig for itself and pick up its own marbles—including those 40-ton chunks of marble which help to make up its daily freight and earn its daily bread.

Late in 1950 Caverly stepped into three official jobs on the Rutland: trustee, director, and vice president in charge of non-operative departments. Then in 1954, after a good workout, he took the top job and for a while was the youngest railroad president in the country.

From the beginning, the Rutland family rated him as a "spicker and spanner." Oldtime housecleaning was, and is, a Caverly specialty. "Clean 'er up and let railroaders railroad" was his motto.

The company's official staff included Sidney Rogers, a former

Richard J. Costello

March of progress has razed many covered bridges. Last one left on the Rutland is at Shoreham, Vermont.

Rutland Railway

Radio-phone, one of the first such installations in the East, permits the engineer in the switcher's cab to talk with yard office, Burlington, Vermont.

Rutland Railway

The new president, Alan T. Danver, has been railroading for about 42 years, with the Rutland Railway since 1925.

Pennsy division superintendent with a mind like a steel trap. He's the Rutland's head of operations. Guy Larrabee came from the Rock Island to be the new vice president for sales and service. Alan Danver, the Rutland's longtime chief engineer, was stepped up to the treasuryship and executive assistant, and last February first he succeeded Mr. Caverly as president.

The biggest personnel changes have been the upgrading of veteran employes and the boosting of all wages to standard, this latter being accomplished with the gentle prodding of the big Brotherhoods. These changes might roughly be classified as fun. But the management had two painful chores also.

One was dropping the heavily-losing passenger service, effective June 1, 1953. This evoked public protests and sad newspaper comments. But it had to be done if the Rutland was to stay alive. The other change hurt even more.

When Caverly took over, the company had 58 aging steam locomotives with a total average life expectancy of less than seven years. That was less than good news. Furthermore, the Gateway just didn't have enough money to keep the steamers operating at anywhere near efficiency.

It couldn't afford to buy diesel-electric locomotives, either, but since both the scrap and resale markets for steam engines were fairly strong, Mr. Caverly and his capable board of directors made a hard decision. They'd sell all of the steamers for cash and use the money as down payment on a minimum fleet of diesels. That, too, had to be done in order to keep the railway itself from being junked.

While the president was driving home at dusk after he had reached

John F. Williams, Rail Photo Service. Sherman Bldg., Boston, Mass.

A sight you'll never see again on the Rutland: old No. 57, built by Brooks, wheels special Army milk-train out of Brandon, Vt.

this conclusion, he watched a through freight taking the heavy grade to Ludlow. The earth trembled under the mighty feet of a 350,000-pounder as she walked up the hill with a string of boxcars and hoppers and flats tied to her tail.

Never before had Mr. Caverly been so deeply moved by the power and glory of steam. He listened to the thunderous exhaust and the lonesome wail of her whistle echoing and re-echoing through the pine-clad granite hills. Black smoke painted the sunset.

It was a fit subject for a master artist or photographer, but neither of them could have recorded the emotion that Mr. Caverly felt as the engineer waved at him.

"I blame near cried," he told us, much later, "but my job was to save the road."

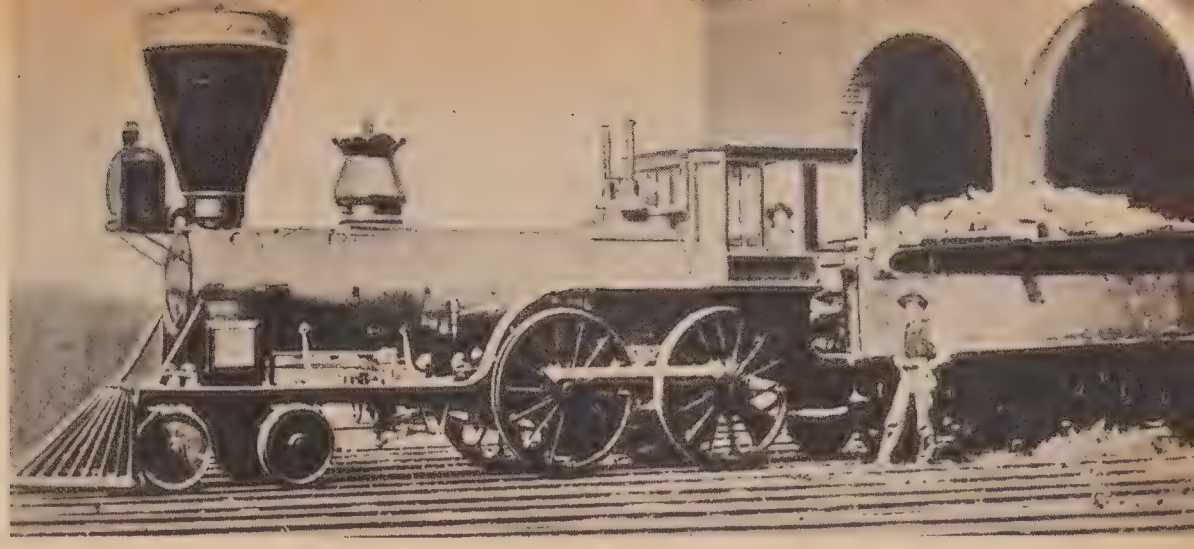
And that is how one railway deserted steam and turned to diesels. The change was inevitable. Those ICC examiners hadn't been kidding when they labeled the Rutland "a steamer museum."

The newest and biggest of the road's 58 coal-burners was the Mountain-type (4-8-2), Class L-1, that Caverly had watched that late afternoon with pain in his heart.

Also on the last steam roster were four Ten-wheelers, dated from 1902 to 1908, and four Consolidations, slightly younger, and a Mikado, built in 1918, and two Pacifics, one built in 1925, the other in '29—all Alco road engines.

The switchers were fast approaching senility. They included four Alco 0-6-0's, one of them 1902 vintage and weighing only 101,700 pounds but still able to kick cars around and make up trains of long-haul freight. There was also an Alco 0-8-0 with a driving-wheel diameter of 51 inches. She'd been built about the time doughboys entered the first World War. Those same boys have grandchildren now. Even older was a tough Mogul with 57-inch driving wheels that first took to the rails in 1900. The Rutland switchmen loved her.

But the prize relic of the lot was a home-rebuilt switcher that originally had been a woodburner, built by the Taunton Locomotive Works away back in 1870. Her old Taunton boiler was still good, though, and the octagenarian kept busy.



The woodburner *Deer*, on Ogdensburg & Lake Champlain (now part of the Green Mountain Gateway), was built by Kirk at Cambridgeport, Mass., in 1850.
Collection of Charles E. Fisher

Atomic reactor, one of the world's heaviest machines, rode the Rutland as an oversize, overweight freight shipment. Clearances made it a tricky hauling problem.
Rutland Railway

The company threw out the whole stable and bought fourteen GE-Alco road switchers (nine of 1600 horsepower, five 1000 hp.) and one yard goat of a modest 660 hp. All of these diesels are now paying for themselves while helping to keep the Rutland operating in the black.

That same goes for the new rolling stock. This includes 375 Pullman-Standard PSI boxcars, freshly painted in the Gateway's stunning green and gold (see *Railroad Magazine's* front cover). And 70 all-steel gondolas, with 25 more coming this September, and 27 covered hoppers, used mostly in the lime trade, and 27 insulated milk pickups. The road's territory is plentifully dotted with dairy farmers.

In recent years the maintenance of track and wayside equipment has become surprisingly modern. Handcars vanished. The section force, numbering 80 men, are doing their work more easily with the aid of 50

power machines of various kinds.

The Rutland was the nation's first railway to build covered bridges. Nicholas Powers saw to that. Nick had won fame as a designer and builder of Yankee covered bridges even before he became bridge superintendent for the Rutland 113 years ago. He served in the latter capacity until that historic Christmas Eve of 1849 when the line began carrying passengers.

The Rutland's first passenger business was geared to timetables of the Connecticut Valley stagecoaches. Gentlemen riding the "steam cars" sported beaverskin top hats and gaily-colored weskits, and toted carpetbags. The lady passengers looked sufficiently demure without facial makeup. They wore hoop skirts, poke bonnets, whalebone corsets, and ankle-length drawers. The hard wooden seats must have felt uncomfortable to their sensitive backsides on long trips. In winter, the coaches were heated at one end by pot-bellied coal stoves that had a playful habit of setting the car afire if and when, for any reason, it turned over.

But all of that was long, long ago. This linking of the old and new was dramatized in a startling way one day in 1847 when a Rutland construction gang drained a pond on the site of the present depot at Summit, Vermont. From the bottom mud and muck of centuries the Green Mountain boys scooped out the well-preserved skeleton of a mastedon, that prehistoric furry elephant with enormous curving tusks. It was quite a find! You can see it today in the Boston Museum.

This Rutland *first* was a lot less practical than the one which made history the following year when the "right peculiar" line became the first railroad to develop its own iron mines. Around Pittsford, Vermont, the Rutland men actually smelted the cast-iron that was used for the original rolling stock.

The summer of 1851 saw another important *first*. The world's pioneer refrigerated car, home-built and base-vented, went into service on the Ogdensburg & Lake Champlain Railroad, which later became part of the Rutland. It was cooled with ice blocks that had been sawed from a frozen pond the previous winter and stored in a "proper ice house." This car was used in hauling milk.

Wood-tanked maple syrup cars and wood-vatted pickle cars also were on the list of Rutland *firsts* in specialized rolling stock.

Today, under President Danver, the Rutland is carrying on with renewed vigor. (Mr. Caverly left Vermont to take over as executive vice president of the New England Council, which seeks to stir new life in all Yankee industries.) The road's freight business is healthy. Orders from the St. Lawrence Valley alone assure that this year's volume will exceed last year's.

With a bit of luck, such as the continued blossoming of the St. Lawrence Valley, which is all but certain, and the development of a big-time cement industry along its right-of-way in Vermont, which is quite probable, the tough old Rutland will remain for a long time on the sunny side of the ledger. At the very least, it is back to stay, and much too tough to die. ●

Shadows that pass in the night: a Rutland brakeman signals to his engineer.

Rutland Railway

Ten-Wheelers

Fast Dwindling in Numbers but Still Undaunted, and Dreaming of Past Glory, the Few Hundred 4-6-0 Iron Horses That Remain in Harness Carry on the Great Tradition That Dates Back for 110 Years

by H. L. KELSO

I WILL NEVER FORGET that biting cold January night when I was working for the Omaha Road and a fiendish callboy routed me out of a warm bed to fire an extra west over the half-snowbound Nebraska Division. The mercury had sunk so low that icicles hung all over Sioux City. To make things worse, my engineer was a rapper. (In case you didn't know, a rapper is a man who runs his engine with the throttle wide open and the Johnson bar down in the corner, with a callous disregard for his fireman's aching back.)

We drew No. 279. Even now, almost forty years later, I remember that wheezy, little, slide-valve, Schenectady Ten-wheeler as the poorest steamer in a beat-up lot of Class F-9's. I could see right away that I was in for an interesting trip.

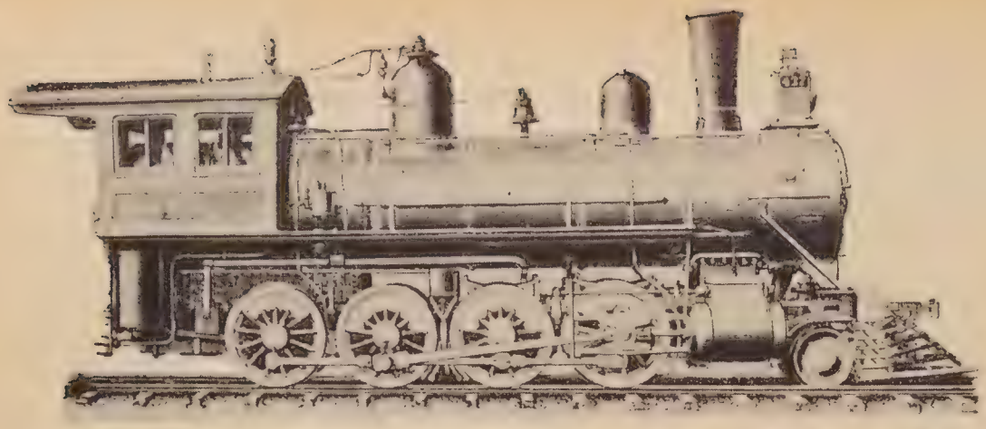
Well, after yanking a drawbar, we dragged our tonnage train out of the yards. There wasn't a star in the sky. Old 279 lagged so much steam that we barely made it across the ice-covered Missouri River into Dakota City on the Nebraska shore. There we stopped to clean the fire.

In due time we got going again and limped into Hubbard. Once more we halted to rid the firebox of clinkers. Then we climbed the long hill to Nacora—doubling it, of course—and after we had hooked our train back into one string we drifted slowly down into the Emerson yards. It was good to see those red and green yard lights winking in the gloom after a 29-mile grind that had killed a bit over five hours.

Now, if you think that stoking an ancient Ten-wheeler was pure romance, keep on reading. We crawled along for five hours more through the bleak night, with repeated stops; and at Oakland, Neb., still 51 miles from Omaha, we cleaned out our fire for the eighth time. By then we were both fit to be tied.

"Shake her down!" said the hogger.

And so, as was customary, I vi-



Don't confuse the 10-wheeled Consolidation type with *real* Ten-wheelers, 4-6-0's.

Septimus Norris' *Chesapeake* was the first practical 4-6-0 locomotive ever built.

Samuel J. Hayes' "Camel" as she looked at the St. Louis Exposition in 1904.

brated the grates with the shaker bar to make sure they were firmly attached. A sudden roar from the engineer startled me:

"You half-witted bastard! I said *shake* those grates, not jiggle 'em!"

Well, sir, that did it! Raw nerves can stand just so much, and ours had reached the limit. I'll skip the details of what happened next, except to say that our head brakeman climbed into the cab to pull us apart. It was the only time I have ever tangled with a hoghead.

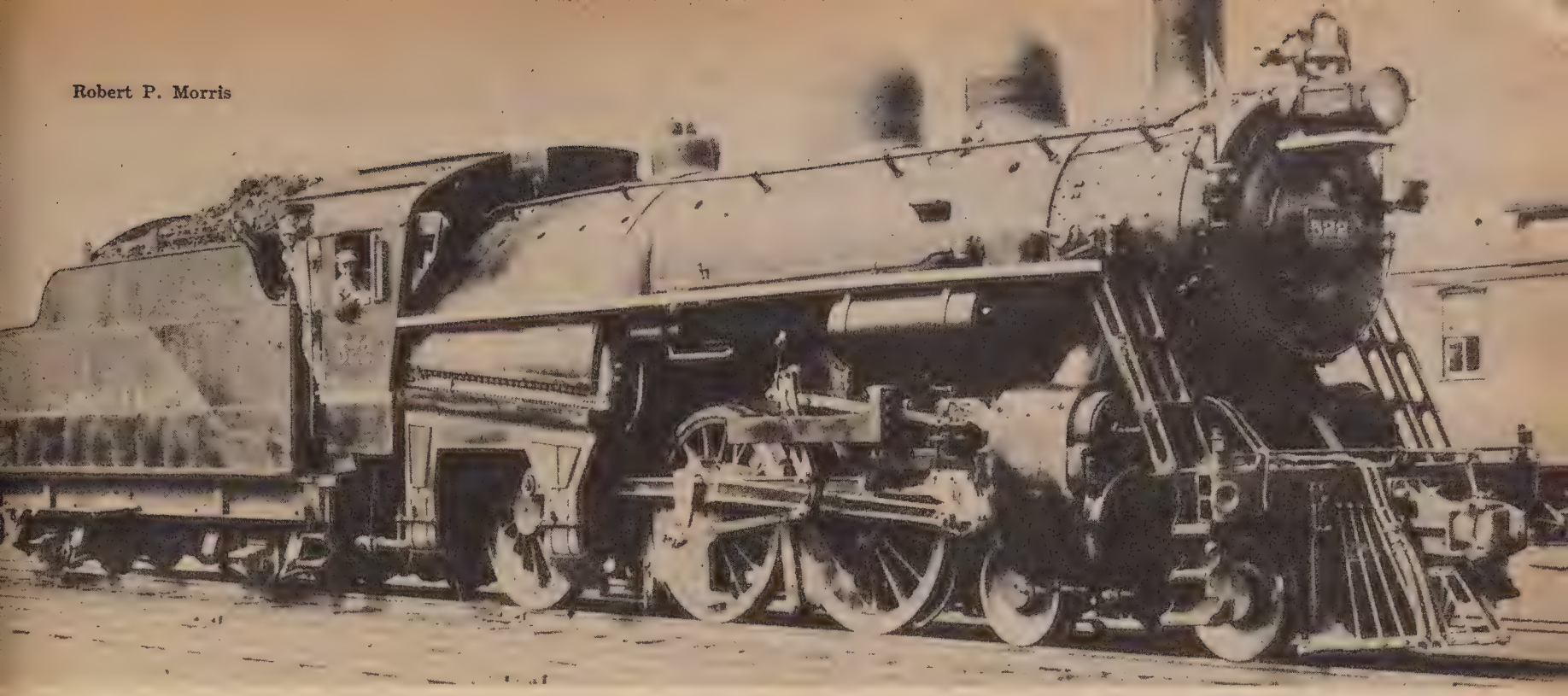
But this tale has a happy ending. We patched up our differences before reaching Omaha, and thereafter were the best of friends. On later trips my pal was right careful how he set the Johnson bar. In fact, usually I handled it myself, the lever being located beside his seatbox.

Of course, my experience with the 279 was no criterion of Ten-wheelers in general. Actually, this type of locomotive led all the rest—except the 4-4-0—in glamorizing the railroads, in spectacular fast runs, and in building up the United States and Canada. Those old gals made considerable history and hundreds of them are operating even today. Their story should be printed in letters of gold.

Technically, any engine with a total of ten wheels is a Ten-wheeler, but the term generally refers to a 4-6-0. The earliest practical one dates back to 1847, when that pioneer builder Septimus Norris produced the *Chesapeake* for the Philadelphia & Reading. This new "giant," a wood-burner, weighed 40,000 pounds and had a "haystack" boiler with a large dome on top. Like other iron horses of her day, she was cabless. Enginemen stood on the open deck under a blistering sun or in a blizzard.

Then in 1863 the Reading acquired its second 4-6-0, this being the first of the distinguished "Gunboat" class, designed and built by James Milholland. After that, the road leaned heavily on Gunboats for freight service until 1880, when the Consolidation, or 2-8-0, took over. Still later, the Reading used fast and powerful Ten-wheelers on many passenger runs. Then came Wootten.

Robert P. Morris



Over the years, at least 17,000 Ten-wheelers burnished the rails of America, including the Delaware & Hudson's big 522.

To John E. Wootten, the road's general manager, goes honor for the wide firebox he designed in 1877 for burning culm. This invention he applied to a Ten-wheeler, No. 408, built in the company's shops. Her cab was placed directly atop the firebox, which put the crew pretty high up from the ground and on a rather warm spot, and gave the general appearance of one of Ross Winan's famous "Camels."

A similar machine, No. 412, was built and sent to the Paris Exposition. She performed well when tested on French and Italian roads, but her cab's height exceeded European clearances, so it was lowered by being placed astride the boiler midway between the stack and the firebox. This new arrangement was the predecessor of the Camelbacks or Mother Hubbards.

The Baltimore & Ohio's first Ten-wheeler, designed by Samuel J. Hays and somewhat resembling the Camel, hit the rails in 1853. Then came Henry Tyson's 4-6-0's, the Thatcher Perkins breed, and still later the Davis Ten-wheelers. Thus B&O's 4-6-0 history was well on its way, and the way was memorable.

Eventually the road went in for high-speed Ten-wheelers with 78-inch driving wheels, and, pound for pound, no finer passenger engines have ever scorched the ballast. By this time, 4-6-0's were taking over more and more freight and passenger business all over the country. The New York & Erie acquired its first one in 1851, barely four years after the type appeared—No. 12, a 29-ton Rogers. That same year Rogers, Ketchum & Grosvenor built three for the Lackawanna: the *Capouse*, the *Lackawanna*, and the *Tunkhannock*. This trio did so well

No. 2371, built at the Southern Pacific's Sacramento shops in 1917 as Class T-32 and rebuilt eight years later as Class T-40, was the only T-40 the line ever had. After the rebuilding, she was slicked up and her wheels whitened for this official photo.

David L. Joslyn, 2164 Castro Way, Sacramento, Calif.

that they stole the thunder from the 4-4-0's, only six of which were added to the Lackawanna's roster between 1851 and '65.

Ten-wheelers played a major role in the Civil War, especially the Milholland "Gunboats" and those built for the Lackawanna by Danforth & Cooke and Dickson. The Central Pacific began using 4-6-0 woodburners long before it joined its brittle iron rails with the Union Pacific's in 1869 on the north shore of Great Salt Lake.

Over a span of 110 years, this superb type of motive power has completed its cycle from lowly freight mover to a proud position on the fastest and flossiest "streaks of varnish" and back to local merchandise again. It has outlasted the Atlantic type and bids fair to outlive the Pacific and even the mighty 4-8-4, which became so popular in the waning days of steam power.

As early as 1887 Ten-wheelers were pulling the Michigan Central's best passenger trains. The Lake Shore & Michigan Southern followed soon afterward with Brooks jobs whose 80-inch driving wheels were the largest ever applied to a 4-6-0 in America. And, so far as we can ascertain, only the English Ten-wheelers with 81-inch driving wheels ever exceeded them in diameter. In 1891 the Rock Island had a 4-6-0 passenger engine with 79-inch wheels, while the B&O boasted 78 inches.

The top railsongs of all time, *Casey Jones* and *The Wreck of Old 97*, deal with Ten-wheelers. The Jones legend centers around Vaughan, Miss., where the "brave engineer" passed in his chips, and his last home at Jackson, Tenn., which is now a mu-

Surviving *The Wreck of Old 97*, the

Henry Fleming, a New York Central runner, shows his daughter, June, how to fire a Ten-wheeler. As you will notice, the demonstration is made with a cold firebox.

seum, and the plot of ground a mile or so away in which he is sleeping out eternity.

At the official investigation, the crew of the Illinois Central freight train that had been too slow in clearing the main line stuck to the tale that their flagman had placed a torpedo on the track and that Casey's passenger engine, No. 382, had exploded it before ramming their caboose. That was the old story of blaming a dead man. What really happened will be argued about in crew rooms and switch shanties until the last flag is whistled in.

The case intrigued me so much that I made a pilgrimage to Vaughan a few years ago and questioned Emmett Payne, an IC train porter. Payne expressed the opinion that Casey's Negro fireman, Sim Webb, had been making so much noise with the clanking scoop and swinging fire door that neither he nor the hogger heard the torpedo.

This ingenious theory *may* be true. We know that, prior to his "trip to

Southern's No. 1102 was photographed by the late Joe Lavelle at East St. Louis in 1929, six years before she was junked.

the Promised Land," Casey had been called on the carpet several times for what was described as reckless running. But Freeman Hubbard doubts it. Hubbard has talked with Sim Webb and with Casey's widow and children. He points out that Webb sided with the white freight crew at the official inquiry but that a minority race man in Mississippi, without the engineer to support him, hardly could have done otherwise. Many years later, when he had reached the "now it can be told" stage, the aging witness denied that Casey had run a flag!

Folks regarded Casey's engine as a hoodoo. Rebuilt after the crash, she returned to the *Cannonball*, the IC's best train, and was renumbered successively 212, 2012, and 5012. She figured in half a dozen derailments or smashups that killed two firemen, and when she rumbled to the junk pile in 1935, nobody wept to see her go.

Oddly enough, the other Ten-wheeler involved in a folksong was scrapped that same year. The story behind *The Wreck of Old* 97 is told by a friend of mine, Thomas O. Acree, a retired Southern Railway dispatcher who was on duty that fatal October day in 1903.

"Old 97," he recalls, "was a solid mail and express, burnishing the single-track rails from Washington to Atlanta. Although southbound, it had precedence over all other trains. The hogger was George A. Broady. Baldwin had built his engine, No. 1102, only a few months before.

"Disaster waited grimly at the north end of Still House Trestle by the foot of White Oak Mountain near Danville, Va. Waited at a point where the shaky wooden structure made a sharp left turn downgrade. Over it, a standing slow order limited all trains to ten miles an hour. Engineers would drift several miles before reaching the danger zone and use their air brake valve every few minutes from top to bottom.

"But Old 97 was a special pet, and Mr. Broady, like Casey Jones, was making up lost time on his final run. Whether or not his air brake failed, as the song relates, has never been determined. Certainly he was *not* 'coming down hill at ninety miles an hour.' Forty-five would be closer to the truth.

"The weather was mild. A soft autumn haze filled the air. It wasn't the right setting for a tragedy. But Old 97 left the rails at the curve and plunged down 75 feet into a ravine. The impact messed up a pattern of fallen leaves, destroyed most of the train, and sent to glory the entire crew of nine men, including mail clerks and express messengers."

It also smashed open a large cage of canaries. Hundreds of green and yellow birds flew from the wreckage, perched themselves on nearby trees, and trilled a golden stream of melody. Today, a historical marker indicates the spot. As for the 1102, she was rebuilt and served the Southern well for 32 more years before the

Photos by John P. Carrick, 16712 Chirco St., Los Gatos, Calif.

Sierra Railroad's 3-spot, one of the few Ten-wheelers kept in operating condition in U.S., is shown with a railfan special.

Another 4-6-0 that is still alive, Western Pacific's 94, emits black smoke as she wheels an excursion through Niles Canyon.

inevitable blow-torch cut her up.

Probably the most distingished Ten-wheelers in regularly scheduled fast freight were the Baldwin-built, Class G-O, engines used by the Cotton Belt on its *Blue Streak*, long regarded as the world's fastest freight. These engines were used also on the *Lone Star Limited*, the road's best passenger train. Originally built in 1913-'15 as coalburners, they were later converted to oil and equipped with power reverse, mechanical lubricators, and Scullin disc drivers, making them the most modern 4-6-0's on record.

Ten-wheelers electrified the nation with many high-speed runs. Take, for example, the Plant System's 111. Legend has it that No. 111 was America's fastest 4-6-0 and, in fact, the second fastest steamer of any breed. A certain Pennsy's Atlantic type, which is credited with a spurt of 127 miles per hour, was, of course, the champion.

No. 111 made headlines on a brisk March day in 1901 on the Plant System's old Savannah, Florida & Western. With Albert Lodge at the throttle, she sped to fame in a race with the Seaboard Air Line for a lucrative mail contract. Four cars of U.S. mail bound for Cuba were turned over to each road at Richmond, Va. Skyrocketing into Jacksonville, Fla., the 111 is said to have attained the startling speed of 120 miles per hour, winning the race.

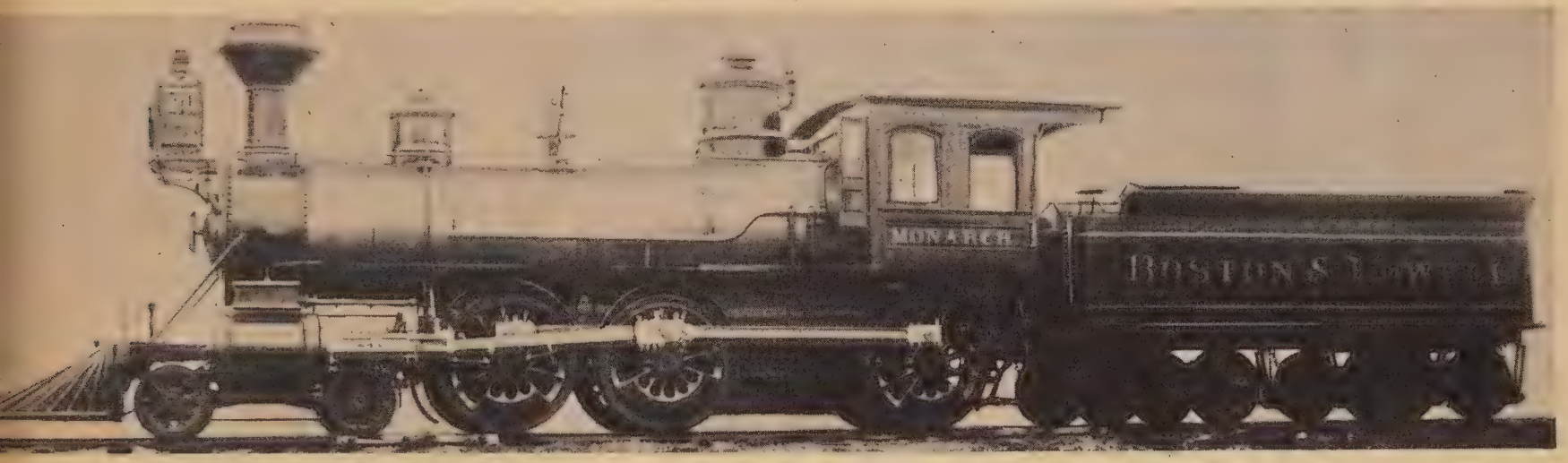
Another sensational run was made in 1895 by a Brooks Ten-wheeler, No. 564, which stepped through the dew at better than 90. The hogger was Bill Tunkey, the train was the *New York-Chicago Special*, and the roads involved were the Lake Shore & Michigan Southern and the New York Central.

Ten-wheelers stirred the public to a high pitch of excitement in 1905 when the three-car *Coyote Special* whirled "Death Valley Scotty" from Los Angeles to Chicago at a fantastic speed that reached its apex with 96 mph. on the line to San Bernardino.

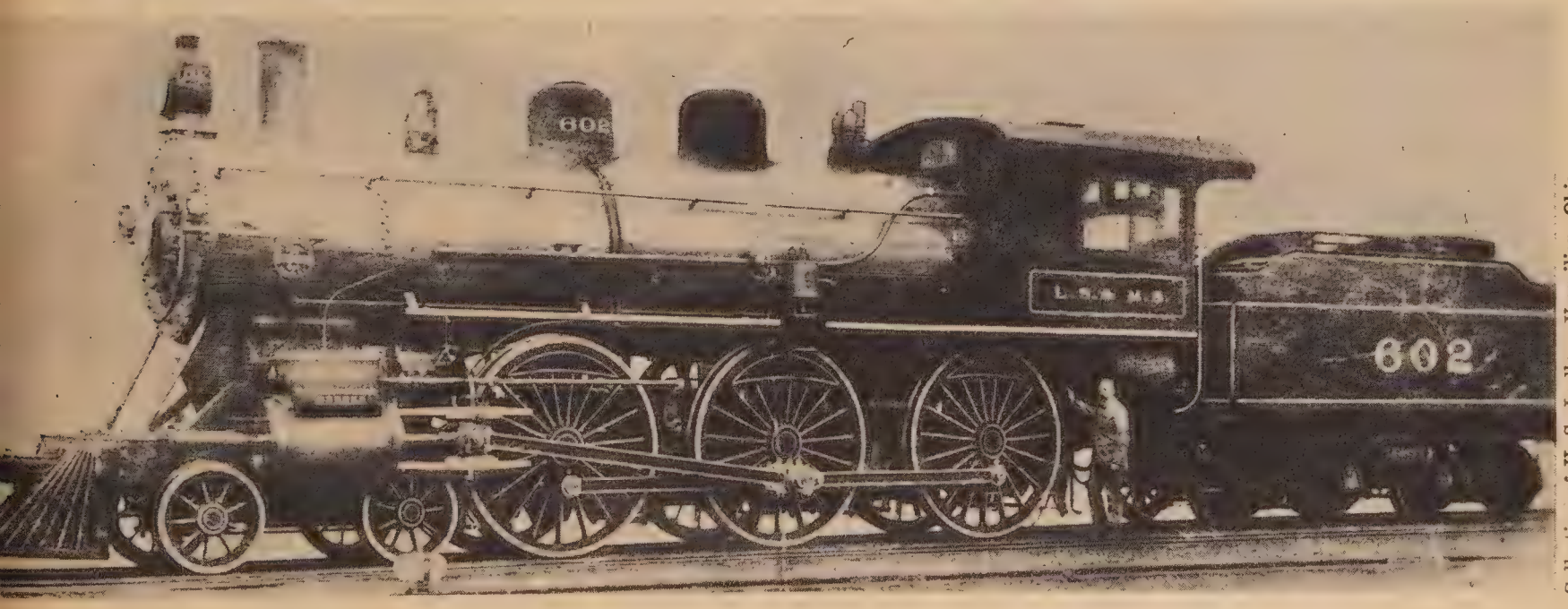
The full history of 4-6-0's would fill a shelf of books. It is estimated that at least 17,000 Ten-wheelers, from slim-gage "cabbage-cutters" to high-wheeled flyers, have plied the rails in U.S.A. They were, in my belief, America's most versatile locomotives.

Of them all, none was heavier than the Southern Pacific's 2371, built in the company's Sacramento shops and weighing 242,500 pounds. Next in poundage came the Pennsy's GFs's, tipping the scales at 237,000.

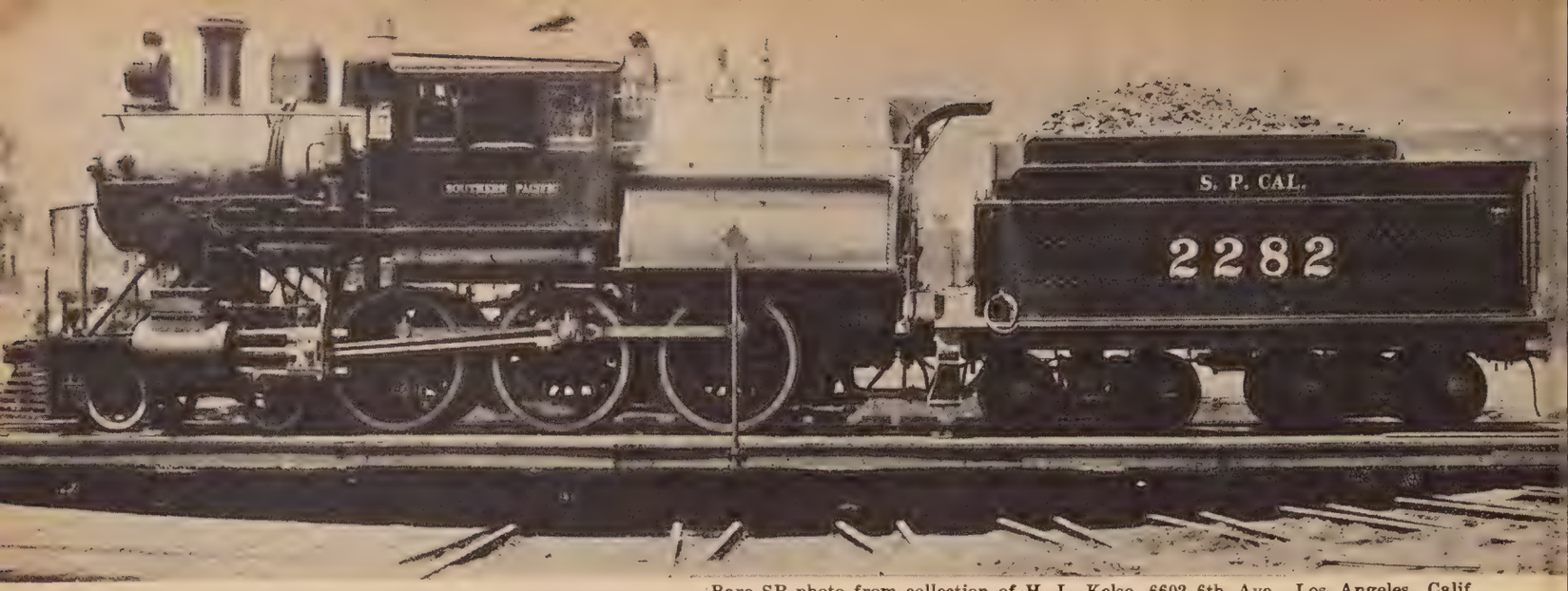
Number 81 of the old Boston & Lowell (now B&M), built by the Manchester Locomotive Works, proudly bore name *Monarch*.



Lake Shore & Michigan Southern No. 602, built by Brooks in 1901, had 80-in. driving wheels. Man looks small by comparison.



Collection of H. S. Ludlow, Vermilion, Ohio



Rare SP photo from collection of H. L. Kelso, 6602 6th Ave., Los Angeles, Calif.

Camelbacks, or Mother Hubbard types, were rather plentiful in the East, but the only one ever used on the West Coast of U.S.A., was this Southern Pacific Ten-wheeler, photographed in Los Angeles on "armstrong" turntable about 55 years ago.

and then the Caprotti-valved 616 on the Reading, 235,000. The last 4-6-0's outshopped for American service were the G5s's that the Pennsy built at its Juniata shops in 1929 and 1930, when the Depression was settling down over the earth like a cold gray blanket.

Today, in the deepening twilight of the Steam Age, you can still find the breed here and there, for the most part patient old workhorses plodding along on borrowed time.

New England's only active 4-6-0's are the Canadian Pacific's 1075 and 1082, located at Brownsville Jct., Me., and put in harness each winter to supplement the work of two 2-8-0's. In Canada, according to the Upper Canada Railway Society, at least 400 Ten-wheelers are still operating. This includes more than 260 on the CPR and its subsidiaries (Quebec Central and Dominion Atlantic), well over 100 on the Canadian National, two on the narrow-gage Grand Falls Central in Newfoundland, and a converted oilburner from the Ontario Northland held for stand-by use on the dieselized Quebec, North Shore & Labrador. Also in Canada, on the Michigan Central's St. Clair subdivision, you can see a pair of undefeated 4-6-0's earning their keep in the freight department. Aside from small electric headlights atop their smokeboxes and unmistakable signs of wear and rust, they still look about the same as when they rolled exultantly out of the St. Clair shops in 1900.

To mention a few others, the Washington, Idaho & Montana logging road has a couple of stand-by 4-6-0's built by Alco in 1906. And at Owenyo, Calif., the SP's 9-spot, just out of Bakersfield shops in fine condition, is held for stand-by use on the Laws-Keeler narrow-gage line. Last September the Nevada Northern marked its 50th birthday by operating a passenger train pulled by ten-wheeled No. 40, on which free rides were given between Ely and East Ely, while camera fans had a field day.

As Time's ruthless hand plucks the remaining 4-6-0's, one by one, from their last runs, a few railroads and movie studios keep specimens of this type in good operating condition for occasional use. Others are preserved in parks and museums.

The Southern Pacific is prettying up its 2384 for donation to a California city, while its 2248, built by Cooke in 1896, is still available for exhibition runs and movie jobs. Another SP Ten-wheeler, No. 2381, is now owned—and occasionally used—by the Railway & Locomotive Historical Society and is sometimes rented to film studios. The old Virginia & Truckee No. 25 is stored in Los Angeles for movie work.

Other Ten-wheelers still retained for use in the United States include Sierra No. 3, the Chesapeake & Ohio's 377, the Northern Pacific's 1372, the Rock Island's 9, the Western Pacific's 94, the Burlington 637, the Texas, Oklahoma & Eastern's 360, the Virginia & Carolina Southern's 33 and 35, and the Atlantic Coast Line's 250.

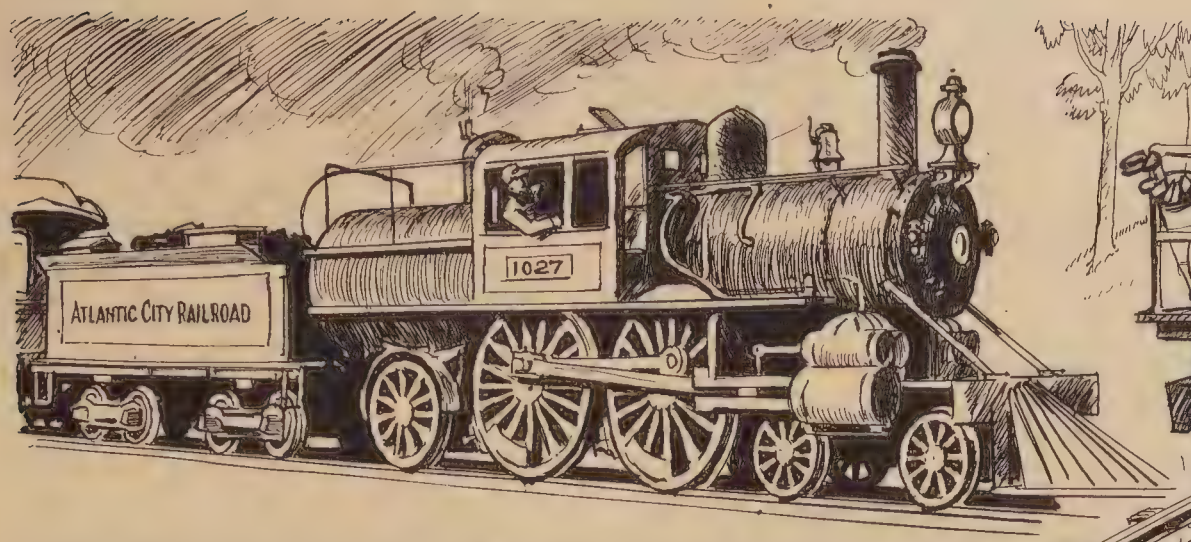
As for permanently retired 4-6-0's now on display or otherwise dead, here is a partial list, the first six of which are narrow gage:

SP 18 at Independence, Calif.
Alaska 18 at Roseville, Calif.
Oahu R&L Co. 85 at Los Angeles, Calif.
D&RGW 169 at Alamosa, Colo.
D&RGW 168 at Colorado Springs, Colo.
RGS 26 at Alamosa, Colo.
NP 328 at Stillwater, Minn.
NP 1356 at Missoula, Mont.
CB&Q 967 (built 1899 as 2-6-0, rebuilt 1914 as 4-6-0) at Minden, Neb.
SP 8 at Carson City, Nev.
LIRR 35 at Salisbury, N. Y.
ET&WNC 12 at Lenoir, N. C.
Black Mt. 1, Erwin, Tenn.
VC 220, Shelburne, Vt.
NP 1364, Tacoma, Wash.
Soo Line 2645 at Washeka, Wis.
SP 2303 at El Centro, Calif.
SP 2252 (formerly in fire service), at Roseville, Calif.
B&O 173 (Davis Camelback) at Museum of Transport, Kirkwood, Mo.
MP 635 at Museum of Transport, Kirkwood, Mo.
B&O (Thatcher Perkins) at Baltimore, Md.
B&O 217 (Davis Camelback) at Baltimore, Md.
Ft. Smith, Subiaco & Rock Island 2522 (ex-MP) at Paris, Ark.
Pennsy 5741, dead, at Northumberland, Pa.
Rock Island 9 (portable display) at Silvis, Ill.
UP 1242 at Lyons Park, Cheyenne, Wyo.

Fast dwindling in numbers but still undaunted, and dreaming of past glory, the 4-6-0 iron horses that remain in harness continue to carry on a great tradition. Yes, sir, old Septimus Norris builded better than he knew, long ago in 1847, when he gave the world his *Chesapeake*, that bright new creature of iron and steam with glittering brass and infinite promise. ●

Along the Iron Pike

by Joe Easley

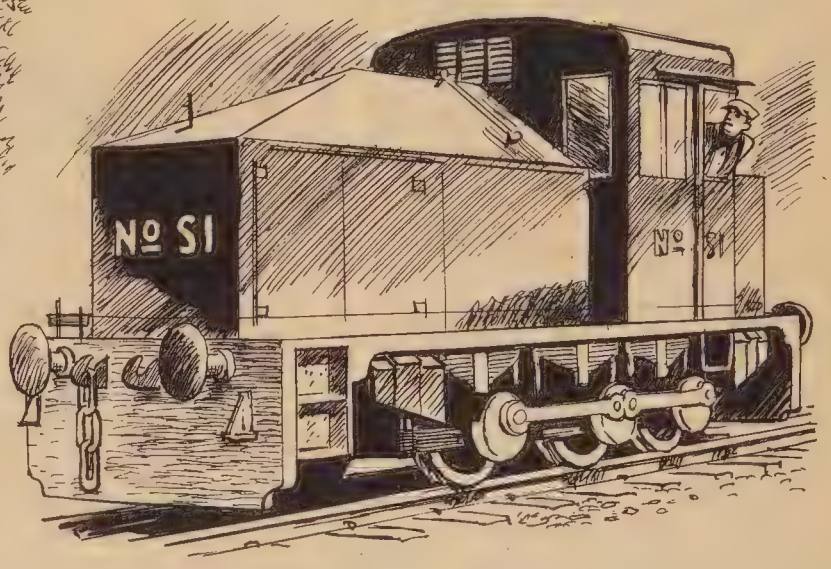


CAMELBACK 1027 PULLED THE WORLD'S FASTEST REGULARLY SCHEDULED TRAIN 60 YEARS AGO ON ATLANTIC CITY RR. BETWEEN CAMDEN AND ATLANTIC CITY, N.J. 58 MILES IN ABOUT 48 MINUTES. ONE DAY IT WAS ONLY 46½ MINUTES!

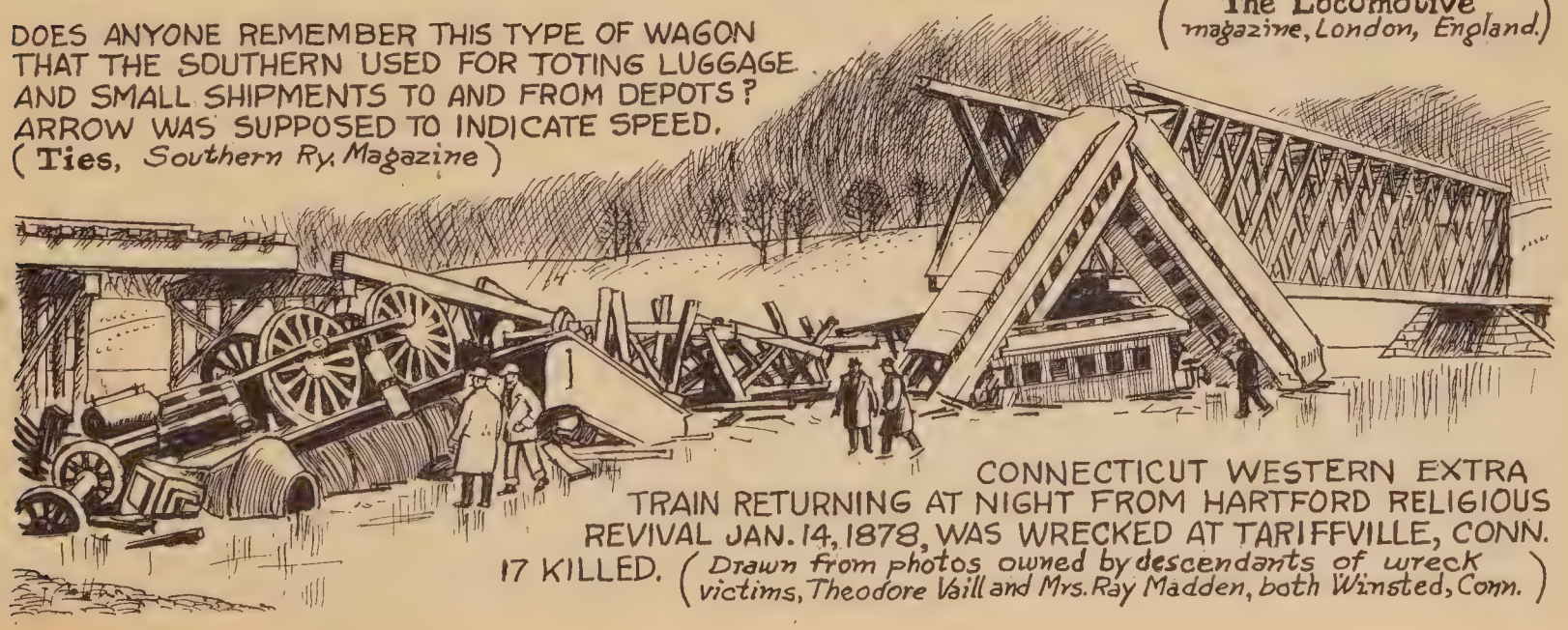
(*Drawn from rare photo owned by Granville Thomas, 218 Vine St., Millville, N.J.*

TRAIN FOR LAZY GOLFERS RUNS OVER 300 FEET OF TRACK AT ROCKRIMMON COUNTRY CLUB, HARTFORD, CONN.

DOES ANYONE REMEMBER THIS TYPE OF WAGON THAT THE SOUTHERN USED FOR TOTING LUGGAGE AND SMALL SHIPMENTS TO AND FROM DEPOTS? ARROW WAS SUPPOSED TO INDICATE SPEED. (**Ties**, *Southern Ry. Magazine*)



NEW OIL-FIRED, BRITISH, INDUSTRIAL LOCOMOTIVE, THE **SENTINEL**, LOOKS LIKE AN ARMORED CAR. (**The Locomotive** *magazine, London, England.*)



CONNECTICUT WESTERN EXTRA TRAIN RETURNING AT NIGHT FROM HARTFORD RELIGIOUS REVIVAL JAN. 14, 1878, WAS WRECKED AT TARIFFVILLE, CONN. 17 KILLED. (*Drawn from photos owned by descendants of wreck victims, Theodore Vaill and Mrs. Ray Madden, both Winsted, Conn.*)

Frederic Shaw

My First Railroad Job

HARRY RIDGWAY

YES, I was scared and I copied the "19" order with a nervous hand. My script didn't show up as a good copy when the division operator, Daniel C. Daley, scrutinized it.

There I was, lacking two and a half months of being seventeen, taking an exam for the job of railroad telegrapher and block operator. I had told Mr. Daley I was eighteen. He gave me a skeptical look, but at that time a lot of new jobs were opening up and he needed men urgently.

I came through okay except for the physical. Cagey old "Doc" Johnson knew I wasn't old enough and refused to pass me. After two more rejections from Dr. Johnson over a period of two months, I was sent to another medical examiner. This one wrote "Approved" on my slip.

And so on November 12, 1915—my seventeenth birthday—I went to work on the second trick at JR tower. I was overjoyed to copy the first "19" in my own right. That started my railfaring life. Now I could line up at the pay car with the rest of the boys. My hourly rate was twenty-five cents.

It all goes back to the period before I went to school. Our family lived about 500 feet from a Pennsy branch line at Hydetown, Pa., about fifty miles south of Erie. My mother must have been pretty busy keeping me away from the track. I can still feel the sting from the many switchings I got for wandering too near the forbidden area. But they weren't very effective. I'd go right back near the shining steel rails the next day. A locomotive seldom failed to lure me to the right-of-way to wave at the lord of the engine cab and the equally important conductor.

As the years passed, my interest mounted. An uncle of mine was a night train dispatcher for the Penny at Oil City. I regarded uncle Irvin as a superior being.

One evening he came to our house, bringing a telegraph set and a dry battery. I often think how fascinated I was to watch him connect it. In a few minutes he had it clicking and snapped out a few test words in his near-perfect Morse—the same "good stuff" he used nightly to dispatch trains. He then wrote out the alphabet and numerals for me in Morse dots and dashes.

"There," he said, "you and your brother Lloyd can start practicing right now. Next time I come here I'll see what progress you've made."

Two years later, Lloyd was proficient enough to start work. I wanted to get a job, too, but no railroad hired 14-year-olds, so I had to wait. Meanwhile, I spent many after-school hours and Saturdays at the depot, practicing telegraphy. I was exhilarated when the agent, Frank McCurdy, let me report my first train to the dispatcher.

Late in August, 1915, Mr. McCurdy decided I should go to work. War was raging overseas and the Pennsy was in dire need of brass pounders.

"You're only sixteen," he said, "but I'll write a letter to Mr. Daley telling him you're eighteen."

And so, on the bright morning of September 1, 1915, I suddenly became eighteen years old and was riding train No. 81 to Buffalo. Every mile of the 117-mile trip was a joy ride, because at last I was on my way to become a railroader. And, who knows? Maybe some day I'd be handling a job like Uncle Irvin's.

C. R. DUSENBERRY

MY DESIRE to become a railroad man dates back to July, 1894. I was a kid of eighteen working as a news butcher, and a nice old lady in a Persian shawl would ride my train twice a week. She rode between Edgerton and Wauseon, Ohio, to visit relatives, anr never failed to buy some fruit or a magazine from me.

Naturally, we got talking together. One day she told me about her son, who lived at Orange, N. J.

"His name is Tom," she smiled. "Thomas A. Edison. A few years ago he invented the electric light."

"Yes, I know," I said quickly, looking up with immensely heightened respect.

I was further thrilled when she said that Tom had started out as a news agent on trains, the same as I was doing, and that he printed a one-sheet newspaper in the baggage car. He tried various chemical experiments in that car, too, and one of those experiments set the car on fire and put him out of business. But Tom nevtr stopped experimenting."

"No, ma'am, he didn't."

Well, the talk filled me with a sudden ambition to do something big. I made up my mind then and there to become a railroad man.

In time, I shifted my news butchering to the Wisconsin Central (now Soo Line) in hopes of getting a better break there.

One cold blustery day in November, 1899, my chance came. Two conductors, Bill Walters and Mose Gavin, promised to recommend me for a job of braking. You can imagine how excited I was. I pictured myself in a trim blue uniform with brass buttons, calling out station names and assisting pretty girls and sweet old ladies like Tom Edison's mother on and off the coaches.

Bolstering up my courage, I journeyed to headquarters at Stevens Point and walked into the office of the superintendent, Mr. A. R. Horn. Because I had heard he was tough there were butterflies in my stomach. But he surprised me by being friendly.

This was it—the glorious moment I had dreamed about! Trying to appear calm, I told Mr. Horn of my ambition to go braking on the Wisconsin Central and said I'd been recommended by two conductors, whom I named.

"I believe that Conductor George Barrows also would speak a good word for me," I added hopefully.

"Barrows, eh?" That name did the trick. Mr. Horn handed me an application blank, saying: "If you suit Barrows, you must be all right."

I've never forgotten those words. They started my railroad career. Later, whenever I worked on Mr. Barrows' train, I bent over backward to please him. I am now eighty years old and still very much in love with the railroad.

JACK R. BELL

WHEN I was thirteen, the family moved to Stockton, Calif., a railroad center. We rented a place alongside the Southern Pacific, one block from the Western Pacific, and three blocks from the Santa Fe.

Stockton had two other steam lines—the Tidewater Southern and the Stockton Terminal & Eastern. No wonder I felt the call of high iron at an early age. I loved to be near the tracks, especially when a fast freight went through town.

Those vari-colored boxcars, swaying and clicking over the rails, the bandana-necked fireman bailing in coal, the Mikado pouring out a squirrel-plume of cinder-laden smoke, and the bobbing red caboose fading around a curve—all these things fanned my desire to become a railroader.

One day I picked up a copy of *Railroad Magazine*, became interested in its Railroad Camera Club (now called the Railroad Hobby Club), and began taking pictures of locomotives. This was an outlet for my love of the roaring road. During 1933, while the Depression was still on, there were plenty of dead engines on the sidings for youngsters to play around and photograph.

In 1937, a Southern Pacific division super named L. R. Smith learned of my railroad enthusiasm. Calling me to his office in Stockton, he said he would hire me as a student operator if I'd practice on the key for six months.

Tutored by a former SP telegrapher, I learned the Morse code so well that I got credit for it in high school. I still have the key and sounder that Mr. Smith gave me to practice on.

But I didn't take up railroading right away. For a few years I tried various jobs. Then in July, 1942, the local newspaper carried an ad which read:

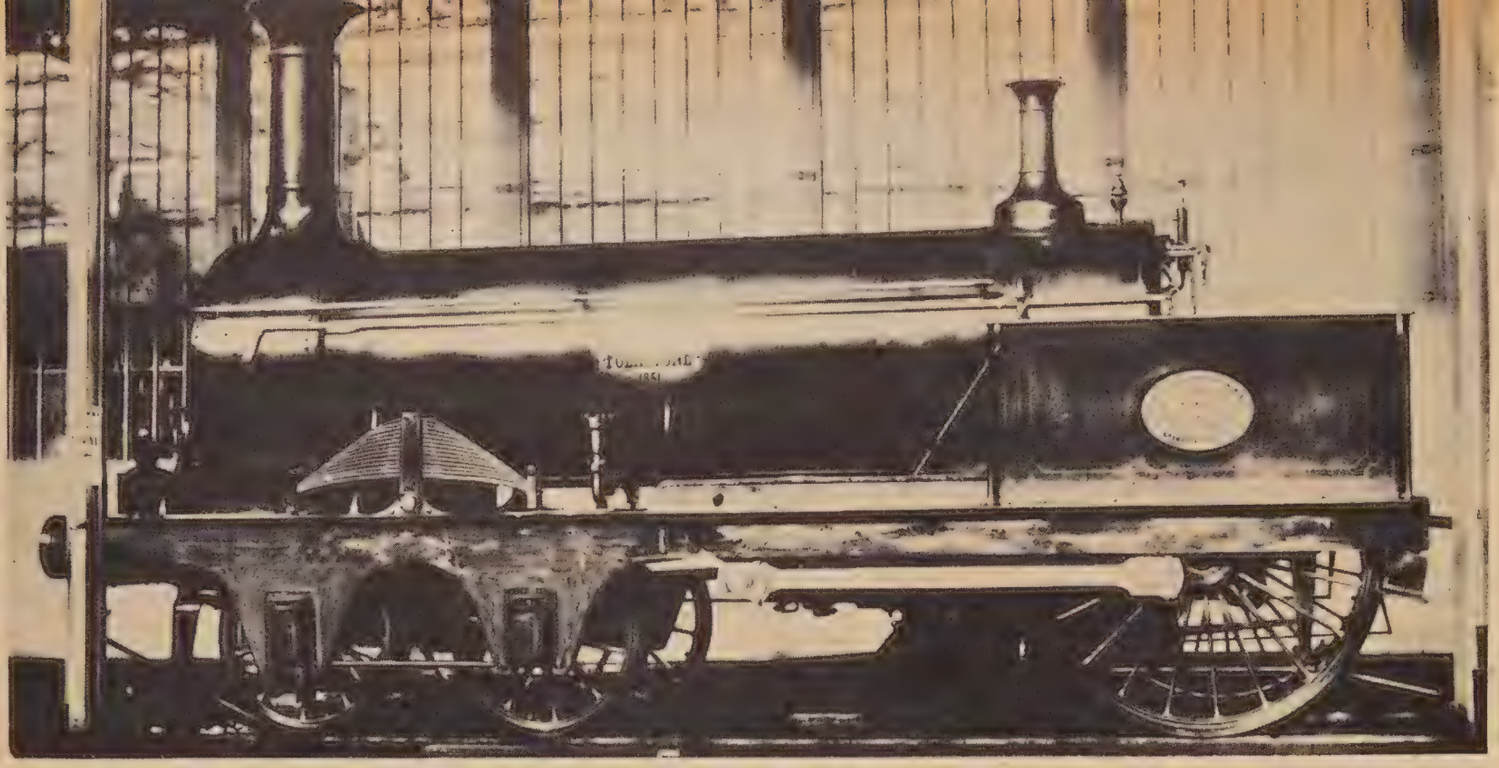
Locomotive firemen wanted. No experience. Apply Stockton Terminal & Eastern Railroad.

I applied for the job, but someone else had beaten me to it. Later, when another opening occurred and the ST&E super tried to contact me, my wife didn't tell me about it until late that night. She knew that a railroad job for me would mean a big cut in wages. She was right. A job firing the ST&E's One-Spot paid $160 a month. I was then making more than that as a carpenter.

But I was bewitched by the drama of bailing in black diamonds to a hungry hog, watching the drivers roll, and smelling steam and coal smoke. So, in July '43 I went back to the ST&E office, took the job they offered me, and became a locomotive fireman. I've never regretted it.

Looking back, I believe that *Railroad Magazine* really started me on a rail career—when I became a member of the Railroad Camera Club.

Fielding L. Bowman



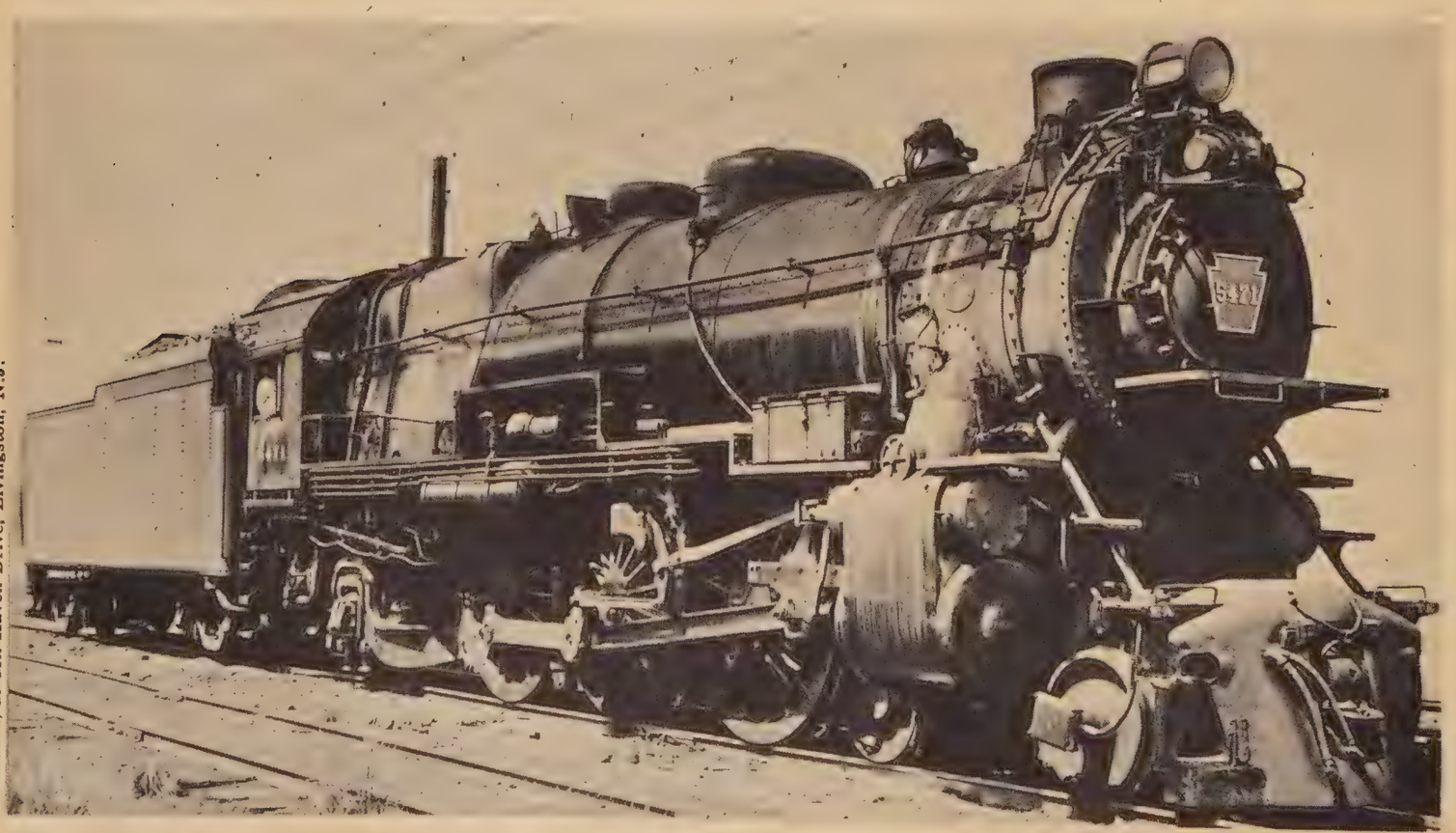
Crown copyright; British Information Services, New York City

The Earliest Known Railroad Photo

SHARPLY contrasted, these two illustrations give you some idea of the advances scored in a century of locomotive-building. The above print came from a rare daguerreotype made in 1851 by an unknown Englishman. The original may be seen any day at the Victoria & Albert Museum in London and is reputed to be the world's oldest railroad photograph. It shows a primitive six-wheeler, South Eastern Railway's No. 136, the *Folkstone*, in a display building at Hyde Park, London. The South Eastern is now in the British Railways System.

Below, you will recognize a Pennsy K-4 freight-hauler, No. 5471. She was photographed not long ago at South Amboy, N. J., on the New York & Long Branch, while awaiting a connection from New York for a run west. This view of a locomotive is a great favorite with many readers, but we think that an even larger number of readers prefer to include a smoke plume and a scenic background.

As a camera subject, the 5471 had a big advantage over the 136 because she stood outdoors in a bright sun. If the 106-year-old daguerreotype had been made with equally good lighting it would have compared favorably with Don Wood's modern shot.



Don Wood, 29 Mt. Haven Drive, Livingston, N.J.

STEAM POWER

George C. Werner, 1211 Melbourne, Houston, Texas

The only 2-6-0 left in regular U.S. service that we know of is No. 201 of 7-mile Moscow, Camden & San Augustine, pulling a Texas mixed train six days a week.

BACK TO STEAM is the Pennsy's latest trend, according to Edward Odon, a PRR substation operator, 244 Grove St., Brooklyn, N. Y. The system is operating hundreds of steam locomotives of its own, but these were not enough. It leased twelve 2-10-4's from the Santa Fe to haul coal and iron from Columbus to Sandusky, Ohio, and a dozen Reading T-1's to pull heavy freight in the region embracing Enola, Renova, Altoona, and Northumberland.

Not only that but the Pennsy has restored its waterplugs between Conway, Pa., and Canton, Ohio, that it had removed a few years ago in the mad rush toward dieselization, Odom says.

It seems to us that Mr. Odom is much too optimistic. Latest available official reports show that the Pennsy has exactly 450 steam engines left. This figure includes some in dead storage and others awaiting the scrappers' torch. All Santa Fe locomotives have been returned, while nine Reading T1's were still in use. It is true that all Pennsy steam power is concentrated in one region.

The Pennsy has not completely dieselized because of its fear that in slack seasons it will have too many units idle. Therefore, it is moving cautiously toward full dieselization. Also, the Pennsy wants to get every last ounce of work out of its existing steam locomotives before they need classified heavy repairs.

Your *Railroad Hobby Club* editor does not agree with fans who say diesels are all alike and lack variety. The Pennsy, for example, has 69 different classes of diesels now in service. We doubt if any all-time PRR steam roster would show that many classes.

"Last November," Mr. Odom tells us, "I spent my vacation in making a system-wide survey of Pennsy steam power. There is plenty! At Altoona, for example, I was amazed to learn that many steamers had been put back into main-line service, both east and west.

"More than twenty-five 2-10-4's (J-1 and J-1a classes) are wheeling profitable tonnage around Horseshoe Curve between Altoona and Pitcairn, Pa. Pitcairn has had to reopen its steam facilities, which had been closed for more than two years, during which interim three- and four-unit diesels took over.

"Now the mighty J-1's are being used as helpers up the big hill to Galitsen, Pa. There they are cut off and sent back down the mountain to Altoona for other helper jobs. Those J-1's lend their great strength to diesels straining to lift heavy tonnage over some of the toughest grades in the East. The diesels tried to do this job alone, but flopped. After three years of breakdowns and overheated traction motors, the railroad finally got wise to the fact that diesels couldn't stand up to the terrific beating the mountains gave them.

"In Altoona's West End yards I watched five GP-9 diesels take a 65-car train out of Altoona and up the long hill to Pitcairn, with three units on the head end and two at the rear. Those babies had all they could do to keep the wheels turning. Half an hour later a big J-1a, No. 6497 (2-10-4) bit into the shiny steel rails with her 106,584 pounds of tractive force. Aided by one of her sister J-1's on the hind end, she left Altoona with 110 cars and blasted up Horseshoe Curve toward Pitcairn.

"It's a shame to waste five diesel units on 65 cars. When you figure it out you'll understand why steam power is back in full stride out of Altoona—not to mention Columbus, Ohio, where steam is currently doing at least two-thirds of the work!

"Last November the Pennsy pulled 37 more J-1's (all 2-10-4's) out of storage for reconditioning and have since put those dependables back to work. The reason for a resurgence of steam is that the diesels, although good mechanically, have not been standing up electrically to the murderously-heavy loading, and their guts have been burning up."

Here is a Odom's list of locomotive classes in the places where steam is currently used on the Pennsy system:

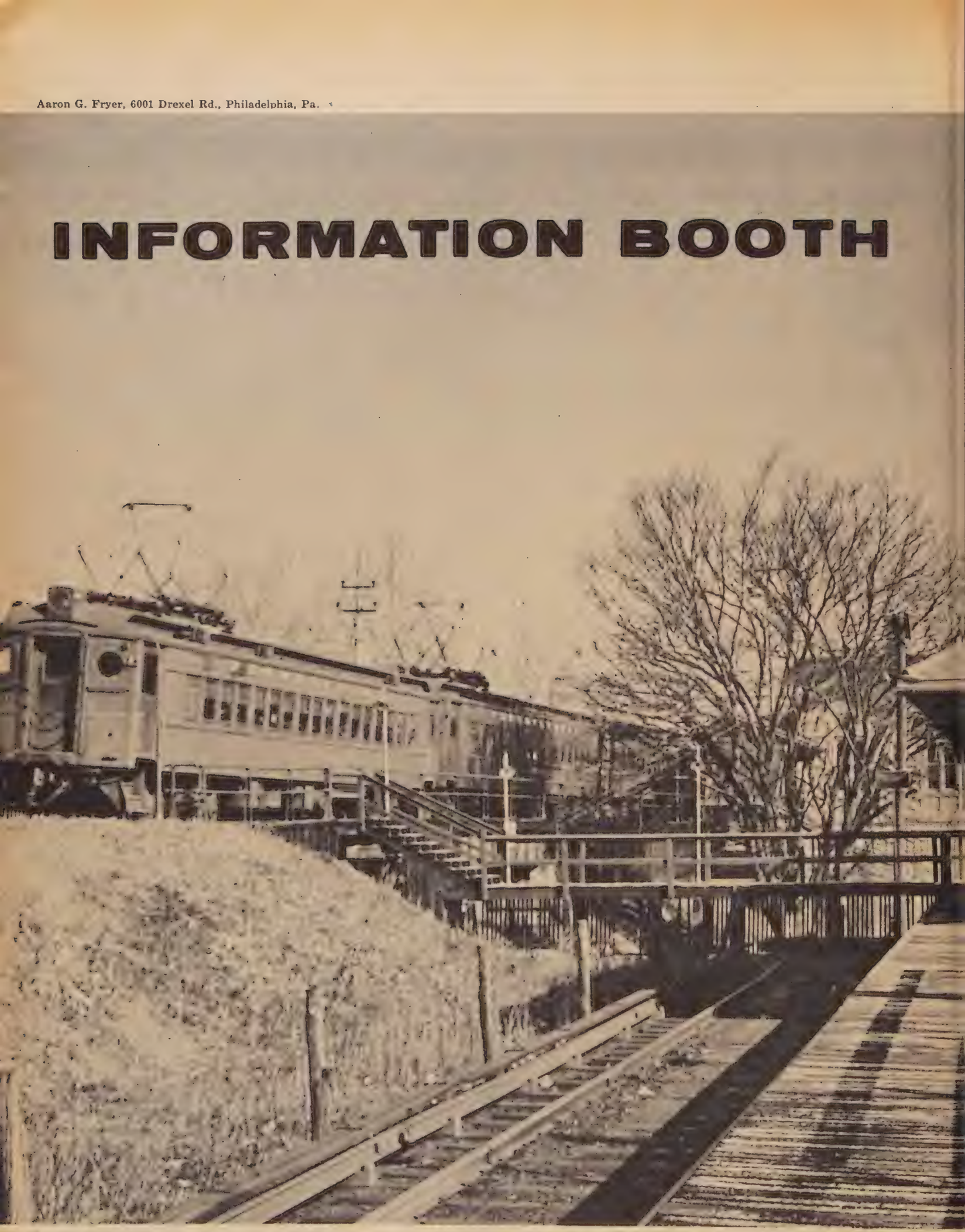
Altoona, Pa. (yard service): I-1sa (2-10-0), J-1 (2-10-4), L-1s (2-8-2), H-9s (8-8-0), H-10s (2-8-0), B-6sb (0-6-0), M-1 (4-8-2)
Altoona to Pitcairn, Pa.: J-1 and J-1a (2-10-4)
Columbus, O. (yard service): H-10s, I-1sa, J-1, 12 leased Santa Fe 2-10-4's; (road service) to Toledo, O.: J-1; to Sandusky, O.: J-1, leased Santa Fe 2-10-4's; to Richmond, Logansport, and Indianapolis, Ind., J-1; to Terre Haute, Ind., J-1
Camden, N. J.: B-6sb, H-10s, K-4s (4-6-2)
Elmira, N. Y.: H-10s, I-1sa, M-1 (4-8-2); to Sodus Point, N. Y., I-1sa, M-1sa and M-1
Enola, Pa., H-10s, I-1sa, M-1; to Altoona, I-1sa, L-1s, M-1; to Northumberland, Williamsport, and Renovo, Pa., I-1sa, M-1, leased Reading T-1 (4-8-4); to Elmira, I-1sa, M-1; to Lewistown, Pa., H-10s, I-1sa, M-1; to Hagerstown, Md., I-1sa, L-1s, M-1
Erie, Pa. (yard service): L-1s
Indianapolis (yard service), J-1, H-10s; (road service) to Terre Haute, J-1
Lewistown: H-10s, I-1sa, M-1
Logansport: H-10s, J-1
Northumberland: H-10s, I-1sa, M-1; to Williamsport, Renovo, and Mt. Carmel, Pa., and Elmira: I-1sa, M-1
Renovo: I-1sa, L-1s, M-1, leased Reading T-1
Williamsport: I-1sa, M-1

Other places in North America where steam locomotives may still be seen and perhaps photographed continue to dribble into our office. Material for the following list comes from Richard J. Fullerton, Larry McMurtry, Wesley N. Stead, Richard Stephey, and your *Railroad Hobby Club* editor. Previous lists have appeared in every issue of this magazine since Jan. '55. We cannot, of course, guarantee their accuracy.

Baltimore & Ohio No. 1674 (0-8-0) recently seen working on Needmore Yard team track. (Pacifics 5222 and 5223 cut up for scrap in Dayton.)
Colorado & Southern (Burlington) is using 2-8-0's and 2-10-2's on branches and between Denver and Ft. Collins, Colo.
Denver & Rio Grande Western recently used Nos. 3609 and 3612 (both 2-8-8-2) while short of diesels.
Five ex-Frisco 2-10-0's work the Eagle-Pitcher mining plants at Pitcher, Okla.
Several narrow-gage 0-4-0T's work the Glenn Allen Colliery at Wannimie, Pa.
Great Western operated at 2-10-0 and several 2-8-0's during the sugar-beet season at Loveland, Colo.
Union Pacific is still using steam in Wyo., Neb., and Colo.: 4-8-8-4's, 4-6-6-4's, 4-8-4's, 2-8-0's, and 2-8-2's.
Four B&O Ten-wheelers have been leased for 6 months (probably longer) to make steam for National Petro-Chemicals Corp. at Tuscola, Ill. ●

Aaron G. Fryer, 6001 Drexel Rd., Philadelphia, Pa.

INFORMATION BOOTH



Philadelphia & Western station at Strafford, Pa., and empty track indicating abandoned trolley line. Pennsy Philadelphia-bound

local from Paoli arrives on upper level.

ASK BARBARA: **Railroad questions are answered here every issue by our research expert—as many as space permits. Top priority is given to subjects that seem to be of wide general interest. Address Miss Barbara Kreimer, Railroad Magazine, 205 E. 42nd Street, New York 17, N. Y. No replies will be sent by mail.**

1 *I am with the Indian Delegation to the United Nations and want to know more about road construction. (a) Some railway crossties in my country are made of iron or steel; how do they compare in durability with your wooden ties? (b) How are they preserved from weather decay? (c) What is the average cost of a wooden tie?*

Welcome, neighbor! The tall glass-sided UN Secretariat Building is located less than two blocks east of *Railroad Magazine's* 20th-floor office and can be seen from our east windows.

(a) As a rule, metal ties last about two-thirds as long as wooden ones. We understand that Indian railways use metal because it resists termites.

(b) Wooden ties are chemically treated before they are laid. Some of our large roads have their own treating plants. Norfolk & Western, for instance, uses a method which raises the temperature in the treating cylinder and withdraws 50 percent of the natural moisture, thus permitting the preservative chemical to penetrate the wood. This process, combined with a wider use of metal tie-plates and plate anchor spikes to prevent slipping, has lengthened N&W tie-life to nearly four times what it was 30 years ago.

(c) About $3.25. Back in 1860, hardwood black walnut ties cost only 20 cents apiece. Present-day ties are made of softer woods.

2 *Some Erie locomotives use a new type of radio antennae resembling a steering wheel on an axle. Is this installation for more efficient operation, or a change in frequency?*

While it does afford better reception, the wheel-type antennae replaced the "firecracker" type on some engines, mainly to overcome a clearance problem at the Lackawanna Station in Hoboken, N. J., which the Erie uses.

3 *What railroad had the smallest* 0-6-0 *tank engines?*

Lehigh Valley's Class G-1's were the smallest of any standard-gage engines of this wheel arrangement we know of. Nine were built at Hazelton, Pa., between 1883 and '91. In 1905 they became Class G-1, numbered 3200 to 3208.

Three were scrapped as follows: No. 3201 in 1913, No. 3205 in 1917, and No. 3200 in 1923.

The remaining six were renumbered as follows: No. 3202 to 3244, 3203 to 3245, 3204 to 3246, 3206 to 3247, 3207 to 3448, and 3208 to 3249. All were scrapped between 1928 and 1934.

They had 14x18-inch cylinders, 33-inch drivers, 120-pound steam pressure; weight 52,300 pounds, tractive force 10,905 pounds.

4 *Where could I see a railroad inspection hand-car?*

At the Baltimore & Ohio Museum, Baltimore, Md.

5 *Give me some information on the old East & West Coast RR. in Florida.*

This line, running from Manatee to Arcadia, Fla., 48 miles of main track, was started in July, 1913, and completed in May, 1915. The entire main line was retired in September, 1934; yard tracks at Manatee are now in use by and part of the Seaboard Air Line.

Midland Continental Railroad

Typical of Midland Continental freight power is this 2-cylinder 19x24, 108,000-pound lightweight Alco 2-6-0 type, retired 1933.

6 *I'd like information on the Midland Continental.*

The 78-mile MC, North Dakota's only short line, owns two diesels, two railcars, two cabooses, a baggage car, a snowplow, and two freight cars. It was incorporated in 1906 to run from Winnipeg, Canada, to the Gulf of Mexico, and was to have been the only north-south system west of the Mississippi, running through some of the richest sections of agricultural America, but the ambition never was realized. In 1916 the line passed into the hands of Frank A. Sieberling of the Goodyear Rubber Company.

The MC was the first road in the Upper Midwest to acquire diesel-electric power. Complete dieselization took place in 1946.

The line runs between Edgeley and Wimbledon, through the heart of the grain district, and connects with the Soo Line, the Milwaukee Road, and the Northern Pacific.

Here is an all-time roster of its steam locomotives:

No. 101, 4-4-0, built 1883 by Portland, bought 1912, retired 1916.
No. 102, Ten-wheeler, built by Alco, bought 1913, retired 1915.
No. 103, built 1891 by Rogers, bought 1913, retired 1920.
No. 104, 2-6-0, built 1888 by Rhode Island, bought 1916, retired 1924.
No. 105, 2-6-0, built 1889 by Baldwin, bought 1920, retired 1926.
No. 106, 2-6-0, built 1888 by Alco, bought 1923, retired 1929.
No. 107, 2-6-0, built 1901 by Baldwin, bought 1925, retired 1927.
No. 108, 2-6-0, built 1916 by Alco, bought 1928, retired 1933.
No. 200, built by Baldwin, bought 1926, retired 1930.
No. 201, 2-8-0, built 1906 by Alco, bought 1927, retired 1929.
No. 303, 4-6-0, built 1905 by Alco, bought 1930, retired 1946.
No. 309, 4-6-0, built 1905 by Alco, bought 1929, retired 1934.
No. 2224, 4-6-2, bought 1941, retired 1948.

Midland's diesel power as follows:

No. 310, purchased from Westinghouse in 1934, retired 1953; No. 401, 4-0-4, purchased new from Alco in 1946; No. 402, 4-0-4, purchased new from Alco in 1951.

7 *Is there any truth in the rumor that the Nickel Plate has bought several New York Central Mohawks?*

None whatsoever.

8 *When was the old Keokuk & Western (now part of the Burlington) converted to standard gage? (b) What type of locomotives were used on the narrow-gage line?*

(a) In 1896 the road was widened from Van Wert to Oceola, Iowa, and then to Des Moines. The rest of the line through to Gainsville, Mo., was widened the following year. (b) The Burlington doesn't know. Perhaps a reader can tell us.

9 *What became of the New York & New England Railway that operated out of Hartford, Conn.?*

The NY&NE, once famous for its white express, the "Ghost Train," is now part of the New Haven system.

10 *Aside from sand, is there any method to reduce the slipping of locomotive wheels?*

Yes, a new device known as "rail-conditioning" has been developed jointly by the Reading Railroad, the National Aluminate Corp., and General Electric. A chemical is applied to rails by a motorized car, operated independently of trains. Tests show that it works in all kinds of weather and gives a minimum increase of 25 percent in adhesion limits of locomotives over present tonnage ratings. The new process is the result of studies which revealed that most slippery rails were caused by an almost invisible oil film spread by moisture which resisted the weight of locomotives.

11 *When did the last train run over the Colorado Railroad from Pueblo to Stone City?*

The line is still in operation.

12 *While traveling on the Texas & Pacific, I heard of J. N. Blue, who seems to be a legendary character. Who was he?*

A T&P master mechanic at Big Spring, Texas, but he was not a legendary character as far as we know.

13 *I'd like information on the Great Northern's new suburban station.*

Opened on Jan. 7th at Edmonds, Wash., 17 miles north of Seattle, the Big G's $160,000 facility serves as a conditional stop for all the roads's transcontinental and international (Seattle-Vancouver, B. C.) trains for passengers bound for or returning from non-local points.

14 *What is the average speed of American freight trains from terminal to terminal?*

About 18.7 miles per hour.

15 *Where is the world's greatest concentration of railroad trackage?*

In Chicago's metropolitan district from Waukegan on the north to Gary on the south, extending westward to Aurora and Elgin. This area embraces about 7,500 miles of track and 206

freight yards; a total capacity of nearly a quarter-million cars.

16 *List the steam locomotives still operating on the Central Vermont.*

The following 2-8-0's, built by Alco are in service: Nos. 450, 451, 452, 454, 461, 464, 465, 466, 467, 468, 469, 470, 471 and 472, built in 1923; and 0-8-0's Nos. 501, 504, and 507, built in 1923; 4-8-2, No. 602, built in 1927; and 2-10-4 No. 707, built in 1928.

17 *Is any of the money withheld for retirement purposes returned to a railroad employe who resigns after* 18 *months of service?*

No. The Railroad Retirement Act makes no such provision. After ten years, an employe is eligible for a Railroad Retirement annuity at age 65, or earlier if permanently disabled. If he has less than ten years, his railroad credits will be transferred to the Social Security system and combined with any Social Security credits he may have. In that case, any retirement or survivor benefits due him or his family would be paid by Social Security. A pamphlet with more specific information may be had from the RR. Retirement Board, 844 Rush St., Chicago, Ill.

18 *Who was Lucius Tuttle?*

The first railroader to hold the title of passenger traffic manager. Later he became president of the Boston & Maine.

19 *What is a booster?*

A complicated piece of machinery built into a locomotive to provide additional power when starting, which also gives coordination to the train as a whole. Without a booster an engine would have to move forward about 25 feet before the last car could begin to roll. The result would be clanking couplers and jerky operation.

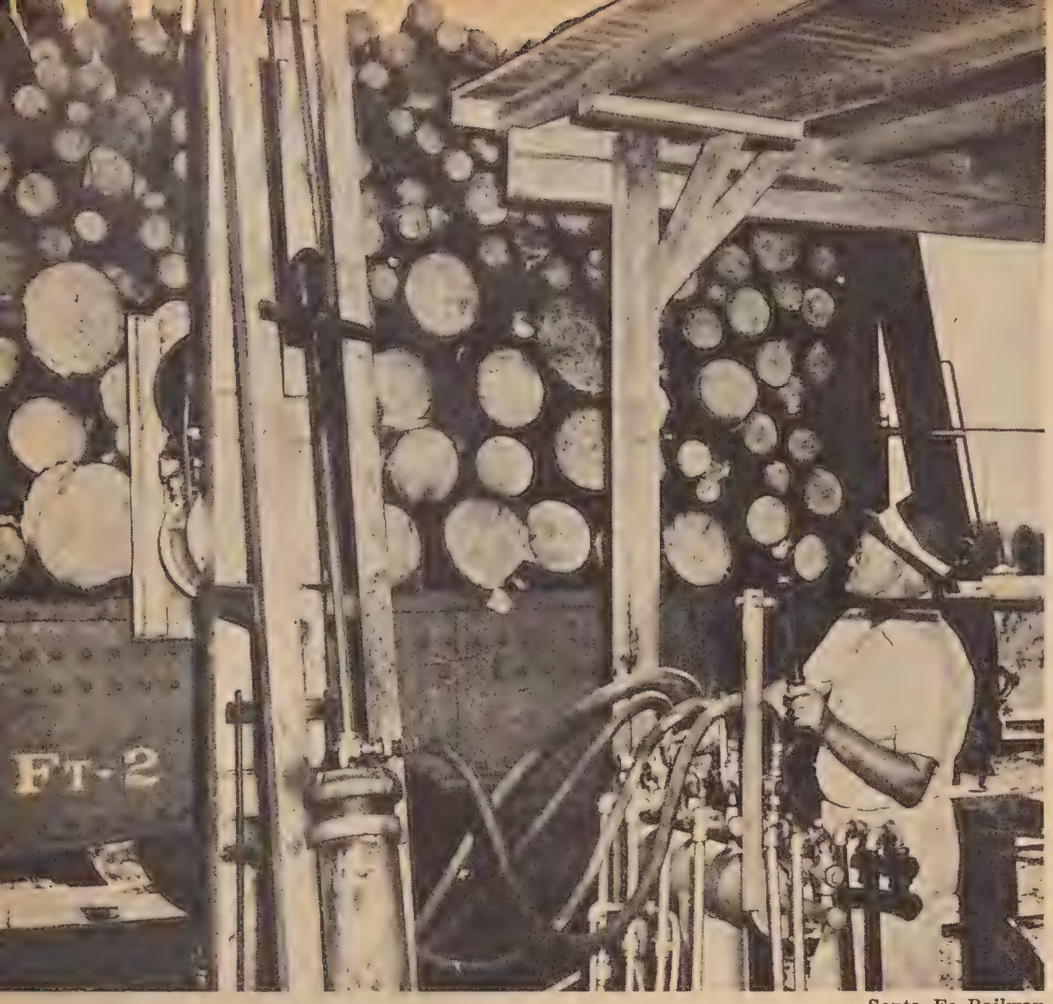
20 *What railroad was known as the Queen & Crescent Route?*

All lines that make up the present Southern Railway System were known by this name, which is no longer used.

21 *When did the Interstate Commerce Commission begin the job of regulating the nation's railroads?*

March 22, 1887, when President Grover Cleveland appointed the first commissioners, five men.

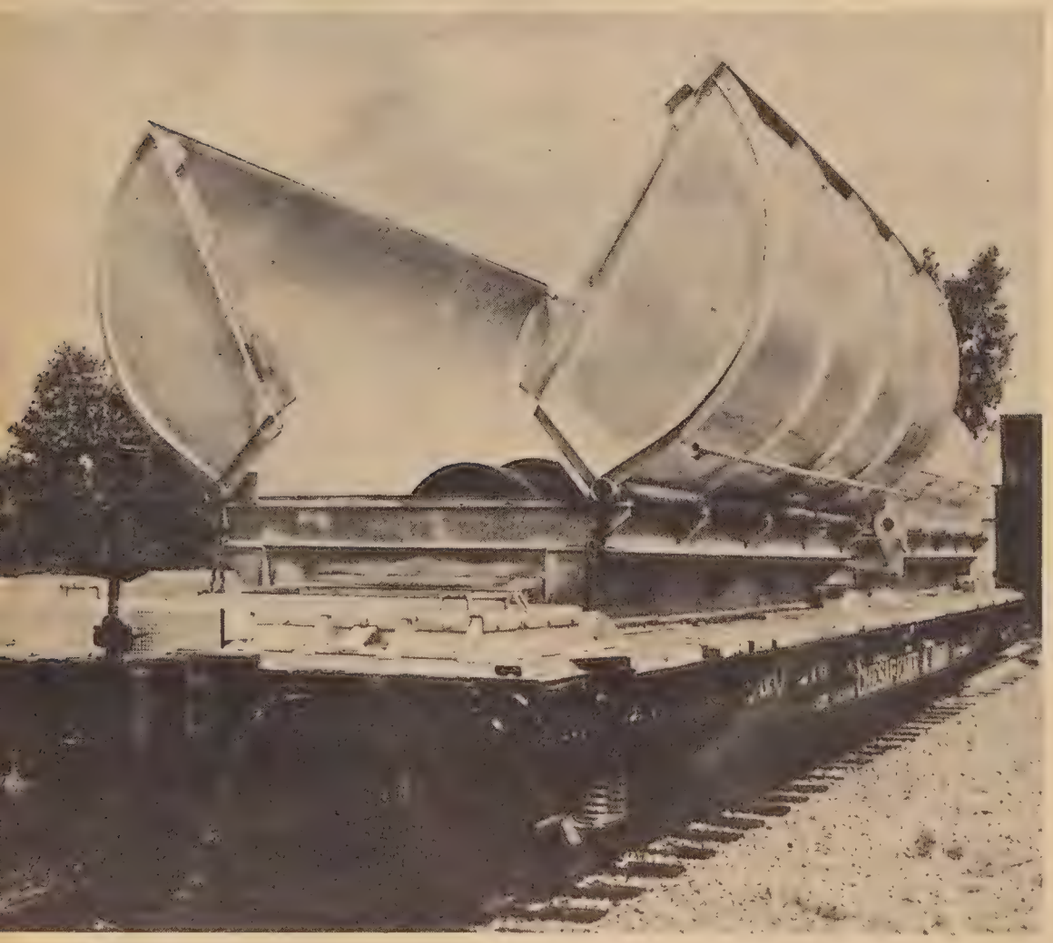
Growing between two main lines of the Union Passenger Terminal Yard at New Orleans, this sycamore has withstood the ravages of time and the march of progress since it was planted as a twig seventeen years ago by Foreman P. H. Schneckenberger (right), who discusses its progress with C. J. Wallace, the terminal manager.



Santa Fe Railway

(Above) Irby Hyde, car foreman at Espee's Silsbee shop, demonstrates pulpwood pusher which he invented. This one-man control operation straightens loaded car in about 25 minutes, compared to manual method requiring 6 to 8 men for 8 hours.

(Below) Coil car, designed for shipping coil steel, protects cargo, saves man-hours.



22 *What is a coil car?*

A new type of freight car for shipping coil steel. Two cylindrical metal shells are fitted lengthwise to a standard flatcar and operated by a mechanical crank-and-gear which opens and closes the encasement. One man can operate it in 45 seconds. The coil car is manufactured by Evans Products Co.

23 *Which was the first railroad to operate its own shop for building and maintaining locomotives and cars?*

The Baltimore & Ohio, which built its Mount Clare shops at Baltimore, Md., in 1829.

24 *Who invented the hook-headed railroad spike?*

Henry Burden, proprietor of the Troy (N. Y.) Iron & Nail Factory, began making such spikes for the Long Island in 1836 and was granted a U. S. patent for them in 1840.

25 (*a*) *Were the Espee* 3800-3811 *series* 2-8-8-4*'s the only semi-streamlined articulated engines in the U. S.?* (*b*) *Are they still in operation?*

(a) Yes. (b) No. They were disposed of as follows in 1955 and '56: No. 3800 dismantled, 3801 sold, 3802 sold, 3803 sold, 3804 sold, 3805 sold, 3806 sold, 3807 sold, 3808 sold, 3809 sold, 3810 dismantled, and 3811 sold.

26 *What happened to the golden spike that was driven at Promontory, Utah, to mark completion of the first transcontinental railroad in* 1869*?*

It is on display at the Stanford University Museum, Palo Alto, Calif.

27 *Tell me about the Virginian's new rectifier locomotives.*

General Electric built 12 of them for the 134-mile electrified section between Mullens, W. Va., and Roanoke, Va. This type of electric locomotive employs ignitron rectifiers that change the high voltage AC to a lower DC. It has few moving parts; is efficient, clean, and reliable.

The Virginian needs powerful equipment for lower speeds, maximum 65 mph; average load of a freight train, 2,338 tons. Indicative of the load these locomotives must pull is the trip over Clark Gaps Mountain, a six-mile haul with a continuous gradient of 2.07 percent and a maximum curvature of 12 degrees. Altitude at this point is 2,527 feet above sea level. The Virginian rec-

General Electric Co.

One of the twelve Virginian rectifier locomotives built by GE for hauling coal over steep grades. Electrified section extends from Mullens, W. Va., to Roanoke, Va.

tifiers have a continuous rating of 3,300 hp. and develop a continuous tractive effort of 791,500 pounds at 15.75 mph. For short periods they may be operated as high as 5,000 hp.

They replaced about 30 locomotives built by Westinghouse in 1928, equipped with two-speed induction motors and utilizing the side-rod drive.

28 *In train operations, what is the difference between a positive block and a permissive block?*

Only one train is allowed in a positive block; more than one is allowed in a permissive block.

29 *What is happening to the old steam-engine roundhouses?*

Most of them are being razed or converted to diesel engine houses. A few are put to various uses—such as Bailey's roundhouse on the B&O at Baltimore, Md., which is a railroad museum, and the former Colorado Midland roundhouse at Colorado Springs, Colo., now a showroom of the Van Briggle Pottery Works.

30 *Some railroads have an automatic stop safety device which picks up electric current from the rails and carries it to the brakes. Can you tell me how this device works?*

Possibly you mean the signaling device which detects obstructions on tracks, such as falling rocks, which are registered on automatic block or interlocking signals. It thus warns the engineman, who applies his brakes. The detector signal does not set the brakes, however.

Or you may be referring to the "deadman's throttle," which automatically stops an electric-powered train when the engineman or motorman takes his hand or foot off the controls.

31 *Do all Rhode Island passenger trains pass through Providence?*

Not quite all. During the racing season, the New Haven runs specials out of Boston to Narragansett Park in East Providence. All other passenger trains in the state pass through the capital and all, except the *Advance Merchants Limited* on certain dates, stop there.

32 *How many motor trucks are owned and operated by the Railway Express Agency?*

13,500. Lined up 100 feet apart, they would reach from Boston to Buffalo.

33 *Why do railroads keep asking for higher freight and passenger rates?*

Wages, prices, and taxes have more than doubled for most of us in the past 15 years, but during that period railroad passenger-mile revenue has advanced only 48 percent, and ton-mile freight revenue only 46 percent.

34 *Was the mysterious disappearance of the inventor of the diesel-electric locomotive ever solved?*

No. Dr. Rudolph Diesel, Paris-born of German parentage, was crossing the English Channel from Antwerp to England with two friends on the steamer *Dresden* one night in 1913 when he vanished. He was fifty-five and at the height of fame. Did he fall overboard accidentally? Was he murdered?

One theory is that he was slain by agents of Imperial Germany (which even then was preparing for World War I) to keep him from turning over his inventions to the British.

Weeks later, Channel fishermen returned to their home port in Holland with a macabre story of picking up a floating corpse, removing certain articles of clothing and throwing it back into the sea. The body never was identified. However, Dr. Diesel's son insisted that a pair of glasses alleged to have been taken from the corpse belonged to his father.

The loss of Dr. Diesel was a tragic end for the genius behind more than 90 percent of the motive power on American railroads today.

35 *How many American women are employed in the railroad industry?*

About 60,000.

36 *Is there any such thing as a domeless tank car?*

Not yet in operation, but a car of this design is being tested at the Association of American Railroad's Mechanical Research Laboratory at Chicago. Domes take care of expansion in high temperatures. The test car carries instruments to measure static strain from impact and compression.

37 *What is the transportation cost of the average loaf of bread, including the ingredients prior to baking?*

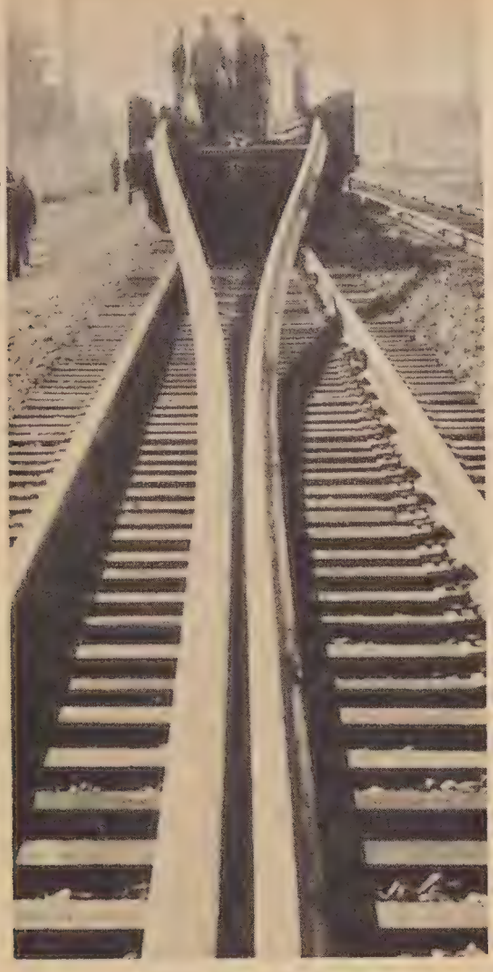
About 1/33 of the retail price, according to *Naional Grange Monthly.*

38 *(a) Which railway owns the southernmost section of track in the U. S.? (b) When was it built? (c) What is the terminus?*

(a) The Florida East Coast Railway. (b) In 1896. (c) Florida City.

39 *Has radio become an important asset to railroad operations?*

Yes. More than 6,100 locomotives, 3,000 cabooses, and 1,200 railway offices are equipped for radio communi-



Pennsylvania Railroad

A quarter-mile length of welded rail is a spectacular sight. Draped from the rear of a gondola, this Pennsy ribbon of steel looks almost as limber as a garden hose.

Erik Styrlander, Detroit News

Two customers catch a final glimpse of fading track as New York Central's 120-year old "Old Road" passenger train makes last run through southern Mich.

cation between road, train, and office forces, while 2,300 or so walkie-talkies are in daily use on U. S. railroads. Western Pacific train dispatcher Peter Josserand is writing a feature article for us about the use of radio and television in railroad operations.

40 *Are any Moguls running today?*

The only 2-6-0 left in regular American service that we know of is No. 201 of the Moscow, Camden & San Augustine, in Texas. She has 54-inch drivers and 30-inch leading wheels. Alco built her in 1906 at the Cook Works, Paterson, N. J., for Isthmian Canal Affairs. After helping to dig the Panama Canal, she was sold in 1922 to W. T. Carter & Bros., a Texas logging company. Seven years later the MC&SA bought her and converted her from coal to oil-burning. She pulls a mixed train over that seven-mile road.

41 *I understand that carloadings are an index of a nation's economic stability. How did America's carloadings in '56 compare with those in '55?*

Last year's total was about 37,775,000, an increase of 140,000 over the previous year.

42 *Harry Bedwell's story, "Wanderlust" (April issue), states: "Eddie Sand, on the boomer trail, was building a mansion for his soul from driftwood scattered along the shores of Infinity." What does it mean?*

We can't speak for the author, who is dead, but as we understand the sentence, Eddie Sand was building his personal philosophy of life, his character, and his destiny from the experiences he had while wandering around the country in one railroad job after another.

43 *Define (a) interchange track and (b) feeder line.*

(a) Track used to transfer cars from one railroad to another. (b) A branch line or short railroad which interchanges traffic (usually freight) with a big road.

44 *I am 24 years old, live in Virginia, and want to be a locomotive fireman? How do I go about it?*

We don't know your qualifications nor which roads are hiring firemen these days. Contact E. A. Manetta, Superintendent of Motive Power Personnel, Norfolk & Western Ry., Roanoke, Va., F. J. Householder, Jr., Chief of Personnel Services, Chesapeake & Ohio Ry., Terminal Tower, Cleveland, O.; J. R. Rucker, Personnel Manager, Virginian Ry., Roanoke, Va.; or Leigh Budwell, Chief Mechanical Officer, Richmond, Fredricksburg & Potomac RR, Broad St. Station, Richmond, Va.

45 *How many big railroads are there in the United States?*

Depends on what you mean by "big"; 44 operate more than 1,000 miles of track each.

46 *Is it true that Pennsy passenger conductors do not have to come up through freight service?*

Not exactly. The Pennsy has two methods of promotion to passenger conductor. Generally speaking, on the lines west of Pittsburgh trainmen are hired for common service, either freight or passenger. Consequently, in that territory, they usually begin in freight service and, if they desire, are eventually promoted to passenger brakemen and passenger conductors.

East of Pittsburgh, the general practice is to employ men separately for freight and passenger service, each with its own seniority listings. However, a freight man may transfer to passenger service if he so desires and opportunity permits.

47 *When did Oklahoma City get passenger train service?*

June 18, 1887. The first train was the *Texas Express,* operated jointly by the Atchison, Topeka & Santa Fe, and the Gulf, Colorado & Santa Fe between Kansas City and Galveston. Oklahoma City was then a station stop in Indian Territory.

48 *Are boxcar interiors lined?*

Most of them aren't, but several patented liners have been put into use to meet shippers' rigid requirements. One is the Conolite railroad freight-car liner, a factory-finished laminate of polyester resin and glass cloth, manufactured by Continental Can. The mechanical strength of this lining protects the car walls from wear and impact, thus reducing splintering and cracking. The Rock Island uses a plastic cement spray for waterproofing and to prevent leakage of grain.

49 *List the North American Locomotive builders who operated in the 1880's.*

The following list is exclusive of railroads that built engines in their own shops:

Baldwin Loco. Works, Philadelphia, Pa.
Brooks Loco. Works, Dunkirk, N. Y.
Canadian Loco. & Engine Co., Kingston, Ont., Can.
Cook Loco & Machine Co., Paterson, N. J.
Dickson Mfg. Co., Scranton, Pa.
Fleming & Sons, St. John's, N. B. Canada
Grant Loco. Co., Paterson, N. J.
Grant Iron Works Co., San Francisco, Calif.
Hinckley Loco. Co., Boston, Mass.
Lima Machine Works, Lima, Ohio
Manchester Loco. Works, Manchester, N. H.
Mason Machine Co., Taunton, Mass.
Mt. Savage Loco. Works, Mt. Savage, Md.
New York Loco. Works, Rome, N. Y.
North Pacific Iron Works, Seattle, Wash. Terr.
H. K. Porter & Co., Pittsburgh, Pa.
Rhode Island Loco. Works, Providence, R. I.
Risdon Iron & Loco. Works, San Francisco, Calif.
Roanoke Machine Works, Roanoke, Va.
Rogers Loco. & Machine Works, Paterson, N. J.
Schenectady Loco. Works, Schenectady, N. Y.
Taunton Loco. Works, Taunton, Mass.
Tanner & De Laney Engine Co., Richmond, Va.
Virginia Iron Works, Norfolk, Va.
Wyoming Valley Mfg. Co., Wilkes-Barre, Pa.

50 *Boston & Maine engine No.* 3699 (*pictured in Oct.* '56) *once hauled freight on the Lackawanna, according to the caption.* (*a*) *What was her original number?* (*b*) *Since most Lackawanna Pacifics were in passenger service, why was she used for freight?*

(a) DL&W No. 1189. (b) It is true that most Lackawanna Pacifics normally were used for passengers, but they hauled fast light freight when required.

51 *I have a builder's photo of the Alabama Great Southern No.* 300, *a* 2-6-8-0 *type. I assumed this wheel arrangement was exclusive to the Great Northern.* (*a*) *Am I correct?* (*b*) *What information can you give me on No.* 300?

(a) No. The Southern had three 2-6-8-0's, Nos. 4002, 4003, and 6399, which were 23x35x32 Mallets weighing approximately 363,550 pounds. They were retired in 1934 and '35. (b) We wrote to the Southern (which owns AGS) and there is no information available on AGS No. 300. Perhaps a reader can help on this one.

52 *Did the state of Virginia rate high in locomotive building?*

Yes, twelve builders were located in the state from 1837 to 1901. Virginia's pioneer, T. W. Smith of Alexandria, began to build locomotives in 1837. A year later D. J. Burr & Co. opened a plant at Richmond. In 1856 Appomattox Locomotive Co. was established in Petersburg. The best known were the Tredegar Works of Richmond, founded in 1850, and Richmond Locomotive Works, in 1886. The former built locomotives during the 1850's and '60's; the latter continued until 1901 or later.

Some Virginia-built engines were trail-blazers, penetrating parts of the country where the sound of a locomotive had never been heard; scores played major roles in the Civil War.

53 *Does the family of the late James G. Hill own the Great Northern?*

No. The "Big G" is owned by 34,300 stockholders, nearly half of whom are women, about one-third men, and the rest joint accounts—trust funds, stock brokers, security dealers, etc.

54 *Is there to be a merger of the Louisville & Nashville and the Nashville, Chattanooga & St. Louis?*

The proposed merger of the L&N

Walking the car-tops is comparatively safe today, thanks to Blaw-Knox serrated electroforged bearing bars, lower right. Compare this walkway with dangerous wooden planking shown on old-time freight car. Note the way hand brakes jut above roofs.

and its 75 percent-owned subsidary NC&StL, is still pending.

55 *Is air-brake equipment on freight cars different from that on passenger cars?*

It is smaller, but the principle of operation is the same.

56 *Is there a railroad in the country that serves food to passengers without charge?*

Yes, the Union Pacific offers this service on the *City of Las Vegas*, the new streamliner which has a "chuck wagon" buffet car serving fruit juices, rolls, and coffee for breakfast, cold cuts and salads for lunch, and a hot entrée with supplementary items in the evening—all "on the house."

57 *I saw two hoppers at the Clemson, S. C., station, both of the Interstate Railway, numbered INT 16006 and 15879. The numbers were painted over the word "Berwind," and numbers BX 44 and BX 14. Where is the Berwind Railroad?*

There is none. The designation refers to the Berwind-White Coal Mining Company.

58 (*a*) *When were the last Alco steam locomotives delivered to the New York Central?* (*b*) *Where are they now?*

(a) No. 9401 in May, 1948, and No. 9406 in June of the same year. (b) They were retired in August '56 and are in storage at Riverside, Ohio, waiting for the scrap pile.

59 *Why did American railroads adopt the low type of track-level station platform as opposed to the high ones used in Europe?*

Because track level is standard American practice, and generally satisfactory. It would be more expensive to erect and maintain all platforms on the level of car floors, although this procedure is in use in large terminals in such cities as New York, Philadelphia, and Chicago.

60 *What has become of the Baltimore & Ohio's Pacific-type locomotives, P-1's, P-5's, and P-7's that were taken away from Cincinnati service?*

The P-1's and P-5's have been scrapped. The P-7's have been superseded by diesel engines on the road's Toledo Division.

They will be withdrawn gradually, but have not yet been sent to the junk pile.

Dick Herre, Union Pacific Railroad

Hospitality aboard UP's *City of Las Vegas* is overflowing. Buffet service is available to passengers at all times in the "Chuck Wagon," where inviting food is served free.

RUNNING EXTRA

BOSTON & ALBANY'S *Berkshire* (item 39, Feb. '57) interests W. H. Fenton, 70 Main St., Westfield, Mass., onetime general foreman of the West Springfield, Mass., shops, who had charge of her changeover. He says she was originally No. 31, but when the road built twelve 2500-series engines she was renumbered 200. She had a vertical throttle with a ratchet, a rare type of installation. Engineer Frank Merrill was assigned to her at the time of the changeover and kept her until she was reduced to yard service and eventually scrapped.

ROY FELD, 426 S. 5th St., Jeanette, Pa., wants some facts on the "doodlebug" that used to run between Latrobe and Ligonier, Pa., and the Ligonier turntable.

ADDITIONAL data on the Espee's *El Governador* (Dec., Item 32) comes from David L. Joslyn, 2164 Castro Way, Sacramento, Calif.:

"She was originally Central Pacific's No. 237, built at the Sacramento shops in 1883 and taken out of service in 1894. The 237 was the largest engine built in her time, with 21x36-inch cylinders. She was the only SP locomotive that operated with only one eccentric on each side, reversing through a curved rocker. She was equipped also with clasp brakes, power reverse gear, combustion chamber ahead of firebox, and radial stays in firebox. Such refinements were quite radical for that period."

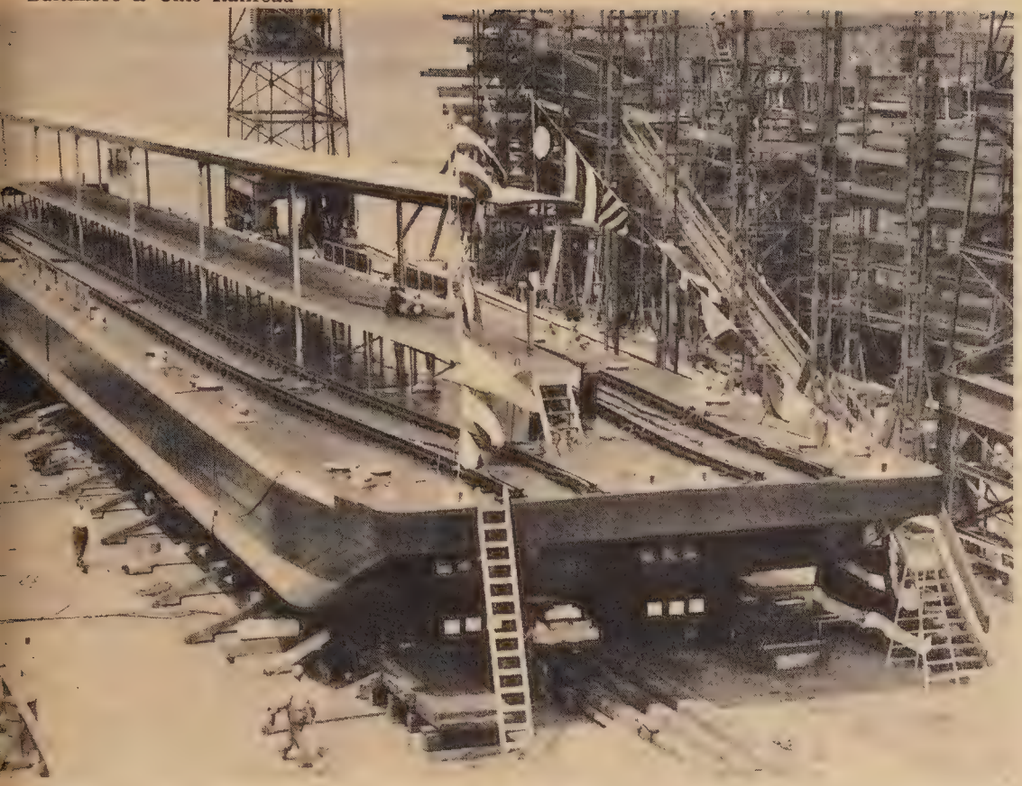
J. SANDERS, Amsterdam, N. Y., wants a brief history of Alaska's Copper River & Northwestern Railway.

TREMENDOUS demand for hard coal in fuel-starved Western Europe is expected to swell overseas shipments of anthracite by the Reading Railroad to an all-time high of more than 2,550,000 tons this year, as compared with 1,750,000 tons routed through the Reading's Port Richmond Terminal in Philadelphia in 1956, and less than 300,000 tons in 1955.

The Reading is meeting the challenge of rising exports with an expenditure of $250,000 on new facilities at Port Richmond that will increase the capacity to load overseas vessels by 60 percent. At the same time, the road is receiving delivery of 1,000 additional coal cars costing about $6,000,000.

LEONARD GOREN, 291 W. John St., Hicksville, N. Y., wants information on the Williamsport & North-

Baltimore & Ohio Railroad



B&O's carfloat No. 212 is the first piece of floating equipment built in the U. S. by methods of optical layout, as opposed to laying the craft at her shipyard ways.

branch Railroad (discontinued in 1938), and other lines that operated out of or near Satterfield, Pa.

JOHNSON BAR remarks in recent issues brought this comment from Hugh T. Jenkins, Philadelphia, Pa., who is a locomotive engineer in the U. S. Army (717 Ry. Operating Battalion) and a Reading fireman in civilian life:

"The military railroad at Ft. Eustis, Va., where our reserve unit has two weeks of annual training, is about half steam and half diesel. I asked my company commander if I could run a steam engine instead of a diesel. 'Yes,' he said. 'The other engineers want diesels.' "

"My engine was a Consolidation type, USA 610, built by Baldwin-Lima-Hamilton in 1952. Her Johnson bar is well balanced and well oiled, but when you operate it you move a lot of weight. I had to do my own firing, because my fireman was a farm kid who had never ridden a train in his life, not to mention a locomotive."

ALAN G. CONOVER, 240 Grant St., Newburg, N. Y., referring to item 7, Dec. issue, says Morse telegraphy still is used on the New York Central's West Shore Division for reporting arrival and departure of trains, number of passengers on them, and interstation messages.

"Almost any day," he adds, "you can see the West Point station agent hand up orders to a crew as the train roars through."

"The Ann Arbor also uses telegraphy in operating trains," reports W. K. Collins, Ann Arbor agent, Marion, Mich., "although we maintain a dispatcher's phone for orders running the entire length of the road."

Mr. Collins wants to hear from readers who can give him information on the Ann Arbor and particularly the older logging roads that used to cross it. The Ann Arbor was incorporated Sept. 21, 1895, eventually took over the Manistique & Lake Superior, and is now controlled by the Wabash. It is the only road with more car-ferry mileage than land mileage.

THE NICKEL PLATE, besides using Berkshire-type engines, as we stated in our April issue, also has some Mikados still in service. Our new *Railroad Hobby Club* editor, Sy Reich, photographed one of those Mikes a few weeks ago.

A SAFETY RECORD is reported by the Association of American Railroads: Since November 12, 1951, more than 65 million passengers have traveled in Pullman cars over 40 million miles, without a single passenger fatality.

During the same period, says the National Safety Council, more than 190,000 persons died in highway traffic accidents.

THE CTC system which the New York Central put into effect last January is the largest double-tract installation of centralized traffic control in the country.

The 163-mile main line between Cleveland and Buffalo is controlled electronically by two dispatchers, one in the Buffalo-Erie section and the other in the Erie-Cleveland section. This new installation makes it possible to operate on two tracks instead of four without sacrificing train capacity and at the same time to cut maintenance and operating costs. Passenger trains are now able to make speeds up to 80 mph. between those two points, and freights up to 60.

By 1963 the Central expects to have CTC operating all the way from New York to Chicago.

"WHERE will I find wide-gage Shay engines in the South?" asks Harold Shuman, Rte. 4, Waynesboro, Pa.

INFORMATION on the Seattle, Lake Short & Eastern, and the Columbia & Puget Sound—especially a history of their locomotives—is wanted by A. J. Healey, 12001 Military Rd., Seattle, Wash.

WHO can identify the initials "DL" on a boxcar seen in the Southwest?

DETAILS on motive power of the LC&NC and the L&NE are wanted by Warren D. Stowman, 2011 W. Godfrey Ave., Philadelphia, Pa.

"I AM PLANNING a vacation in eastern Canada," writes Charles Elston, R.D. 2, Downington, Pa. "Will some reader tell me where I can see the most steam power?"

THOMAS W. LAWSON, Birmingham, Ala., wants a history of the Alabama & Tombigbee Railroad.

"I HAVE two South Carolina Rail Road Co. tickets, both dated July 1, 1873, each about the size of a dollar bill and printed by American Bank Note Co., New York," writes Robert Smith, 205 Deal Drive, Portsmouth, Va. "Would anyone know how much they are worth?"

TRANSIT TOPICS

Rush hour in strife-torn Budapest: car 1527, trailer 5893 on Rakoczi Street.
J. H. Price

EXTRA!
Brazil to get monorail line!
Rubber-tired subway cars in Paris!
New York losing its last trolleys!
Strike against two-cent fare!

by Steve Maguire

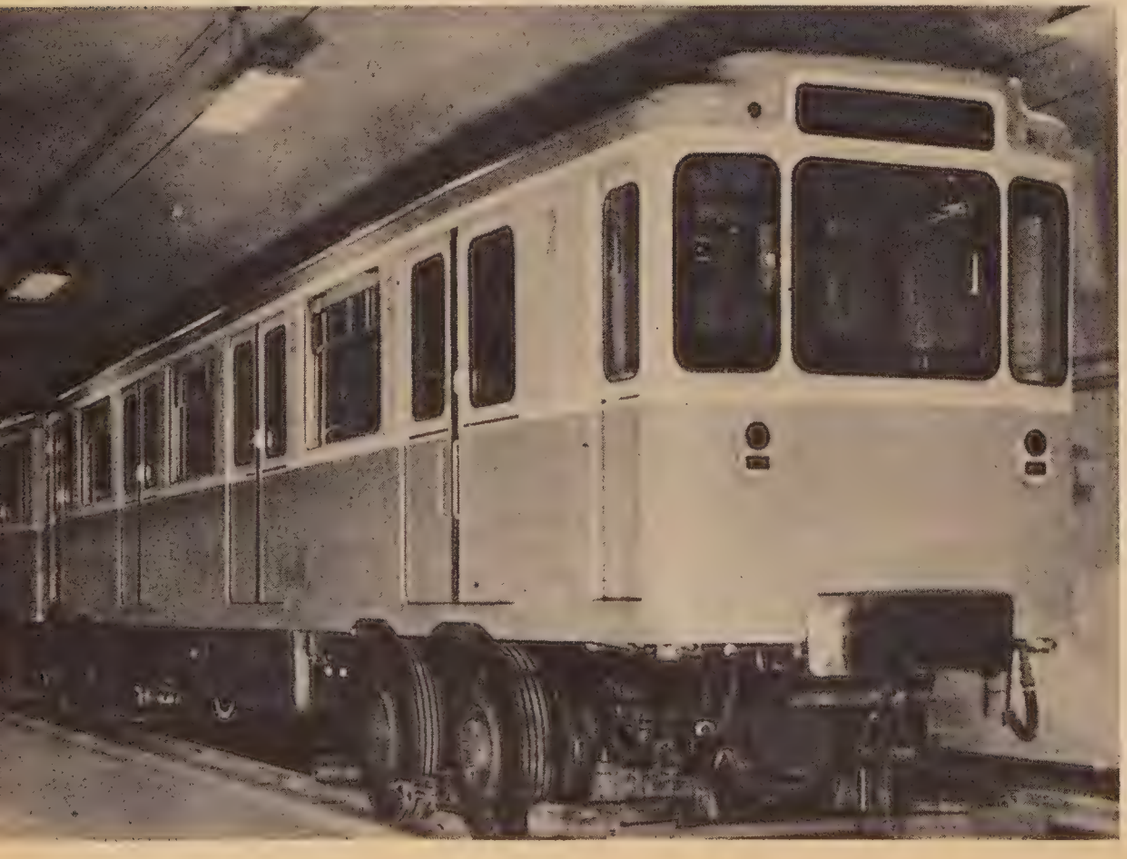
SAO PAULO, Brazil, is working out its transit problems in a big way. That city, believe it or not, has more than 3,000,000 population, a figure that has been nearly tripled since 1940. Sao Paulo's current trolley and bus system is hopelessly inadequate. Waits of half an hour to 45 minutes for a public conveyance are the rule rather than the exception. But the city's Municipal Traffic Commission is doing something about it, and on an international scale.

Steve Maguire

A German corporation has been asked to negotiate a contract for building a 62.5-mile monorail system. This would be the rail-straddling type, not an overhead structure. A Japanese company was invited to work out a contract for building a subway system in Sao Paulo. And a French traction concern also is in the picture, but for what purpose has not been made clear as we go to press. Plenty of North American cities could take a lesson from Sao Paulo.

Japanese interurban train running from Gifu to Toyohashi with four Class-5000 cars, each designed for 100 passengers, built in 1956 by Nippon Syaryo Company.
Sinichi Miyazaki, 1299 Ohno Inaba-Cho, Inaba-Gun, Gifu-Ken, Japan

Transit (NYCTA magazine)
Rubber-tired subway cars now in regular service on 14 trains in the Paris *Metro*.



NOW we've seen everything! The *Metro* subway in Paris, France—which shuts down late at night and stays shut until the morning rush hour, unlike American subways—has just adopted a new wrinkle. One of its routes, a rather short run, is handled entirely by rubber-tired underground trains!

The Chatelet-Lilas run uses 14 such trains of four cars each in regular service, which makes it the world's most comfortable subway ride.

Truck-type pneumatic tires attached

Melville Langhans

Horse-car is sculptured on tombstone of Charles Griffith, his wife Jane, and two children in Greenwood Cemetery, Brooklyn, N. Y. Charles waits on sidewalk to say good-bye as Jane leases home to board the car (shown by arrow) Aug. 3, 1857. According to legend, the vehicle killed her. Charles died a year later. Their home was a four-story brownstone mansion.

George K. Bradley, 1505 Michigan Ave., LaPorte, Ind.

No, this isn't a wreck scene. The Purdue University's Railway Museum in Indiana is merely shipping its test car (built by Brill in 1903) to the Museum of Transport at Kirkwood, Mo., just outside of St. Louis. The big hooks loading the trolley onto a flatcar were borrowed from the Nickel Plate and the Monon. If you've never visited the museum, you should do so.

to the outer side of metal trucks roll smoothly on twin paths of azobe, a hardwood imported from the French Cameroons in Africa, laid outside the conventional rails. According to *Transit,* the monthly magazine issued for employes of the New York City Transit Authority, which supplied our photo of this train, rubber tires on azobe have even greater traction than steel wheels on steel rails.

In case of a blowout, the car settles down with the trucks' *steel* wheels rolling along the *steel* rails, and flanges steering the car. With the Paris subway system losing $16,000,000 a year, the new trains are a bold experiment in lightweight vehicles that *may* cut the losses from standard operation.

Nobody can say the French are a backward people in transportation. The French National Railroads were not only pioneers in robot train control but they still hold, by a very wide margin, the world's train-speed record, 209 miles an hour! The speed king is an electric locomotive.

CLEVELAND Transit System is advertising for delivery of 22 new cars for its rapid-transit extension to West 143rd Street and Lorain Avenue, reports J. William Vigrass, 1494 Cohassett Ave., Cleveland, Ohio.

Construction of the line is starting this spring, and 2½ miles of new track should be ready for use next year. The extension was contemplated even when the present route was under construction. The very first cars carried destination signs reading *W. 143rd-Lorain,* in addition to signs for stations actually in use.

O. A. GOESSEL, a New Orleans juicefan attending Stanford University, states the Public Utilities Commission of California has allowed the Key System to abandon its remaining Bay Bridge railway trains for buses.

Nothing short of a miracle could save those trains now. We all know that National City Lines, which operates the Key System, has a bus obsession. We know, too, that a rapid transit plan for the Bay Area is due to become effective in six years, and when that time comes, if not sooner, the shining steel rails are likely to vanish.

Across the bay, in San Francisco, the city failed to produce $800,000 for relocating tracks on the B and C Geary Street lines, though it did raise $2,000,000 for tearing them up. As a result, the rails were replaced by trackless vehicles on December 29th as part of a freeway program and also because the city had bought many more trackless vehicles than it needed.

California juicefans are lamenting the end of electrification of the Sacramento Northern, once the area's top interurban. Trackage to West Lafayette will be torn up. From there north to Pittsburg and beyond, the line will be operated by the parent company, Western Pacific, for diesel freight only.

ILLINOIS TERMINAL RR. wants to sell its Granite City trolley and bus franchises to American Transit, a bus company that would take over operation of its remaining streetcar routes, using buses. The IT claims to be losing about $155,000 a year on trolley operation.

NEW YORK CITY'S only trolley line, which is also the last one left in the state—the route that crosses Queensboro Bridge to and from a city institution on Welfare Island in the East River—has received permission to give up its

Joseph Omiline, 88-82 138th St., Jamaica, N. Y.

Doomed: Queensboro Bridge route serving Welfare Island, New York City; state's last trolley line. Car is 602.

S. Kobayashi, 17 Shiba-Shinbori, Minatoku, Tokyo, Japan

Motor-car on narrow-gage (2½ ft.) Hanamaki Electric Ry. in Japan is 4 ft. 5 ins. overall. Trailer in rear is wider.

little old streetcars and use buses. That news is no surprise. The railway structure on the bridge is in bad condition after many years of service.

Meanwhile, the city's subway-el system, the world's largest, is getting delivery on its fourth big order of new equipment from St. Louis Car Co. The latest order, for 450 cars, follows the 200 in 1954-'55, the 400 in 1955-'56 and the 250 in 1956-'57.

Each new car will hold 200 passengers maximum. It carries four GE 1240 motors rated at 100 horsepower each, and is self-ventilated. Its MCM control equipment includes dynaming braking.

New York City Transit Authority is now operating 6200 cars on 750 miles of track. Our roster on page 64 was prepared for publication by Sy Reich, a juicefan whom we are glad to welcome into the *Railroad Magazine* staff.

NEW YORK'S EL LINES, 1867-1955 —just published by the ERA as *Electric Railroads* issue 25—sells at 75 cents a copy. This is a detailed history of Manhattan Railway Co., its predecessors, and its operation under New York City Transit Authority. Many photos of motive power and cars. Exact dates for all experiments, service extensions, abandonments. Locomotive and passenger car specifications. Complete set of marker lights since 1882. Plus a collectors' item: set of transfers issued on last day of Third Avenue El operation.

The ERA also is selling an 82-page roster with full data on all steam dummies, locomotives, and the 2,052 passenger cars that once rumbled over New York streets, one dollar.

Two track maps are available: Manhattan Ry. lines in 1893, 50 cents. Lines in 1919-'54, including subways, one dollar.

Electric Railroads 23, with opening date for all New York subway lines and extensions since 1904, may still be had at 50 cents a copy. It came out on the IRT's 50th anniversary and was highly praised by NYCTA officials.

All above publications may be obtained from Electric Railroaders' Assn., 145 Greenwich St., New York City.

BRISBANE has no intention of abandoning any of its present tram lines, writes F. Andrews, 21 Tandoor St., Brisbane, Australia, who says the city's transit fleet includes 420 tram cars, 200 buses, and 30 trolley buses. Among the trams are 144 very modern cars that give base service outside of rush hours. The rest consist of 190 drop-center types on maximum-traction trucks and about 50 older cars known locally as "dreadnaughts," also on maximum traction trucks.

SOUVENIRS. William A. Steventon, Hawkins, Wis., is building up a nostalgic business in trolley and steam-engine sound recordings. He has organized what he calls the Railroad Record Club. Through it members can buy recordings which he has made on trips over such interesting lines as the Waterloo, the Potomac Edison, the East Broad Top CF&N and the Denver, Rio Grande & Western.

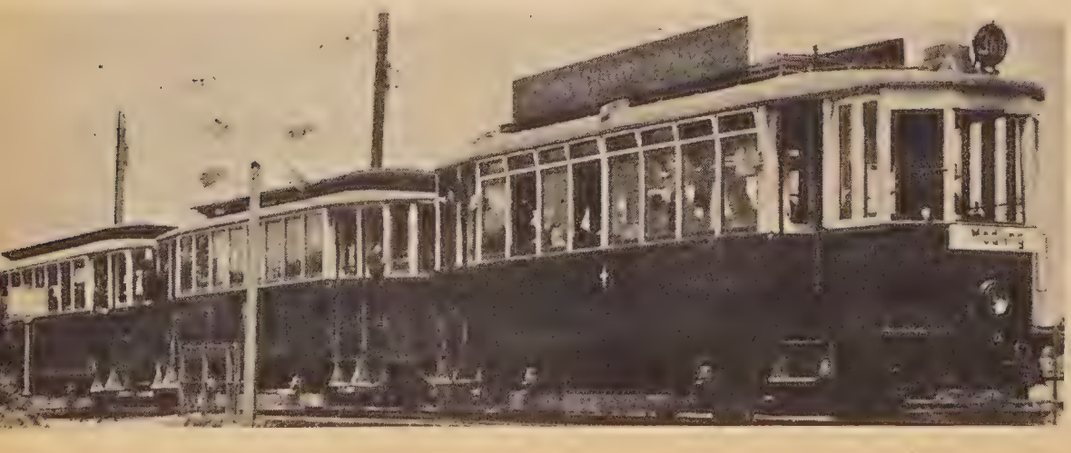
Another trolley fan, Miss Jeanette Hill, 97 Tracey Pl., Englewood, N. J., creates on order pretty hand-made glass cigarette cases and ash trays picturing cable-car and steam-dummy designs. Some of those designs appeared on *Cable Car Carnival's* frontispiece.

PHOTOS of Indiana's electric railways, both city and interurban, especially the small city lines, are needed by Jerry Marlette, 1677 Lincoln Rd., Speedway 24, Ind. He has nearly completed a history book on that subject which he says the Indiana Historical Bureau has scheduled for publication late this fall. But he urgently needs good pix, especially those of small-city trolleys.

"Readers who lend me pictures will be given due credit in the book," he writes. "All will be handled carefully and returned with reasonable prompt-

Lt. Col. John E. Merrikenen

Three-car electric trains of the *Wiener Stadtwerke* (Vienna Municipal Railways) operate in Austrian capital on line that used to be steam tramway.



Steve Maguire, 802 10th Ave., Belmar, N. J.

Illinois Terminal's old-type car No. 277 at Granite City, en route to Springfield.

ness. Please drop me a line before mailing photos."

JUICEFANS can find no better monthly magazine than *ERA Headlights*, which covers accurately and in detail the field of North American streetcars, interurbans, subways, and els, past and present. Published by Electric Railroaders' Asso., 145 Greenwich St., Room 302, New York 6, N. Y., it is free to members, $3.50 a year to all others.

Every issue is a choice reference work. The magazine is printed on excellent paper. Its articles are interesting. Photos are plentiful and of high quality. We have only one bone to pick with the capable editor. His entire setup, except for headlines, is 7 point type, which is tiny and hard to read. We admit that 7 point enables him to publish more material than he could use with larger type, but eye-strain is a pretty stiff price to pay for a few additional details.

By way of comparison, the news section of most daily and weekly newspapers is set in 8 point. *Railroad's* feature articles and stories are 10 point, with extra wide spacing between the lines. *Transit Topics*, 9 point, also with extra wide spacing between the lines. *Switch List* and rosters, 6 point.

Nobody with average eyesight can say that *Railroad* is hard to read. We hope that some day *Headlights* type will rise a point or two.

"SINCE North America has all but eliminated the trolley," suggests L. D. Moore, Jr., Portsmouth, Va., "why not devote more space to streetcars and subways in other countries?"

Good idea! In fact, we are doing it right now. Recently we put the matter up to readers, and the response almost unanimously favored more overseas material in this department. Our thanks to the fans living in foreign lands, as well as the North Americans traveling abroad, who send us news and pix.

BARCELONA, Spain, recently had its trolley cars stoned by university students during a city-wide boycott of surface transport. Police wielded clubs to restore order. The trouble arose from a 20-centavo rise in fare on trolleys and buses. Even with the increase, the Barcelona fare is only two cents; but citizens prefer the old rate, one and a half cents. They showed resentment *en masse* by riding the subway, on which the fare did not increase.

LAST October we published a full-page photo of the privately-owned "Overhead" that ran along 6½ miles of docks in Liverpool, England, and was known as "the dockers' umbrella." We said that this umbrella was about to fold up because of the dwindling number of passengers. Well, it has just folded. Thus ends, after 56 years, the only metropolitan elevated railway in the British Isles.

CLOSING DOWN of the cable lines in Dunedin, New Zealand, leaves San Francisco as the last city on the globe to operate cable cars. Dunedin's trolley system was recently displaced by buses, but two other New Zealand cities, Wellington and Auckland, still have trolleys and are proud of them.

LONGEST present streetcar route in North America, according to Bob Parker, Runnemede, N. J., is Philadelphia Transportation Company's 23. It operates with 2700-series PCC cars from northwestern Germantown, down Germantown Avenue to 10th Street and through the central business section to 10th Street and Oregon Avenue, South Philadelphia, about 12 miles each way.

Possibly the company will abandon Route 20, in which case 23 may be extended over four miles of the abandoned portion from Oregon Avenue to the Navy Base, making a 16-mile route each way. However, PTC has given a reprieve to 20 and at least five other routes after the city suddenly adopted a stern policy toward rail abandonments and even went so far as to suggest taking over all PTC routes for city operation.

Some old cars, including Peter Witt types, which PCC's have replaced, are now in *live* storage and are being put into A-1 mechanical condition. Why? We don't know. Possibly to raise the valuation price in case the city forces the sale of PTC to itself.

"THE FORT WILLIAM *hump* trolley pictured in December *Railroad* may well be old Toronto Suburban Railway car 25," opines John R. Stevens. "Its building plan is still in the Toronto Transportation Co. files."

OUR recent story of the Chicago-New York Electric Air Line brought

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Adam B. Aretz, Tarentum, Pa.

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"Sold an article on hunting to *Outdoor Life* for $400—that makes $1400 from them, plus two stories to *The Trapper*, and several to other men's magazines. The time I put on your course was the most valuable I ever spent."—*Ray Beck, Knox, Pa.*

Student Sells Six Stories

"For several years I'd been writing rather haphazardly and gotten only printed, mechanical rejection slips. I started taking the Palmer course about a half year ago, and during recent months, have sold six stories to leading science fiction magazines. That doesn't make me rich or famous, but it does make me happy. Now editors sometimes even recommend me to friend-editors in other markets. Here's to Palmer and bigger and better sales."—*Chas E. Fritch, Utica, New York.*

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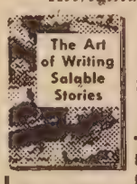

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Lehigh Valley Transit car No. 1001 running alongside Reading passenger train powered by No. 201 near Souderton, Pa., in 1950.

memories to Lt. George Bradley, an old resident of La Porte, Indiana.

"The Air Line made an indelible mark on La Porte County," he writes, "while its financial fiasco is nearly forgotten. The arrow-straight right-of-way and the cuts and fills will long remain as a monument to a dream railroad.

"La Porte was picked as the jumping-off point for the new line. At that time the local people still had fresh memories of the bankruptcy of a car line from Michigan City to La Porte. But the promotion was great enough to offset that sour note, particularly after Air Line cars 101 and 102 had begun running to South La Porte, the site of the power plant, car barn, and shops.

"From that point a nearly level tangent of track was built westward for 20 miles. There, at Goodrum, a short jog was made to avoid bridging the Baltimore & Ohio steam line twice. The Valparaiso-Chesterton branch of the Valparaiso & Northern Railway (perfectly useless to the Air Line's type of construction) already had a crossing there. South of this bridge, at Woodville Jct., another Air Line property angled back toward Gary and became part of the Gary & Interurban Railway, which was acquired by the Chicago-New York Air Line in 1913.

"The G&I had arranged an unfavorable franchise and a three-cent fare with the City of Gary, and in 1915 the system was forced into receivership. The final settlement came in 1917 with a new franchise that required the separation of all lines east of Gary. These lines were soon disposed of, at forced sales, for a fraction of their real value. The Goshen, South Bend & Chicago, all that was left of the real Air Line route, went for $75,000, although it had been capitalized at seven million."

Money-collection car G, originally used as bicycle-storage car, snapped by Joseph Omiline in one of the New York City Transit Authority yards, is still in service.

WHAT happened to $500,000,000 in transit funds that was voted toward building a Second Avenue subway in New York City? This matter is being investigated by the New York State Senate, which also wants to know why NYCTA hasn't sold its bus lines, who is delaying the city's power-plant modernization, and what is wrong with NYCTA labor relations.

Not a shovelful of earth has been dug yet for the new subway to replace the demolished Second and Third Avenue els. Why? Overcrowded Manhattna needs that subway. The line, if and when built, will pass between *Railroad Magazine* office and the United Nations Building, a block from each.

The Transit Authority, having spent its funds on other items, comes up with surveys that deny the necessity for a Second Avenue subway.

REALLY funny trolley jokes are hard to find. Issues of the old New York State Railways' *Transportation News* yielded one which we think is pretty bad:

Conductor: "Madam, this transfer has expired."

Irate Lady Passenger: "Well, you can't expect much else, with a car so poorly ventilated."

And this dubious gem: "Isn't it dangerous to be on a trolley when lightning is flashing?"

"I don't think so. You see, the motorman is a non-conductor." ●

SUNNY SIDE of the Track

The Blackstone Valley Line

AS I MUSE in pleasant reveries,
When the sun is sinking low,
My thoughts drift back to a far-off land,
And the scenes of long ago.
I dream again of my railroad days,
Those days I can't define,
When we held the heavy freight by hand,
Down the Blackstone Valley line.

There were days with pleasure,
And nights that were full of thrills,
When the storm king raged with fury
And the thunder shook the hills.
But little we cared for weather then,
If it was foul or fine,
As we held the heavy freights by hand,
Down the Blackstone Valley line.

I'd like to be there once again,
See any oldtime friends once more,
And talk of how we did the work
In the glorious days of yore.
We'd live again those joyous times,
And sing of "Auld Lang Syne,"
When we held the heavy freights by hand,
Down the Blackstone Valley Line.

—George M. Hill

Epitaph

THERE was a man who fancied
By driving good and fast
He'd get across the railroad track
Before the train came past.
He'd miss the engine by an inch,
He'd make the train crew sore.
There was a man who fancied this—
But there isn't any more!

—Central of Georgia Magazine

Close Pursuit

A CENTURY AGO, when railroads were still new, a man arrived at a station just in time to see the train pulling out. He jumped off the platform and ran up the track after it. Twenty minutes later, all in, he walked back. The stationmaster remarked, "I see you didn't catch the train."

"No," was the reply, "but I made it puff like the devil to get away." ●

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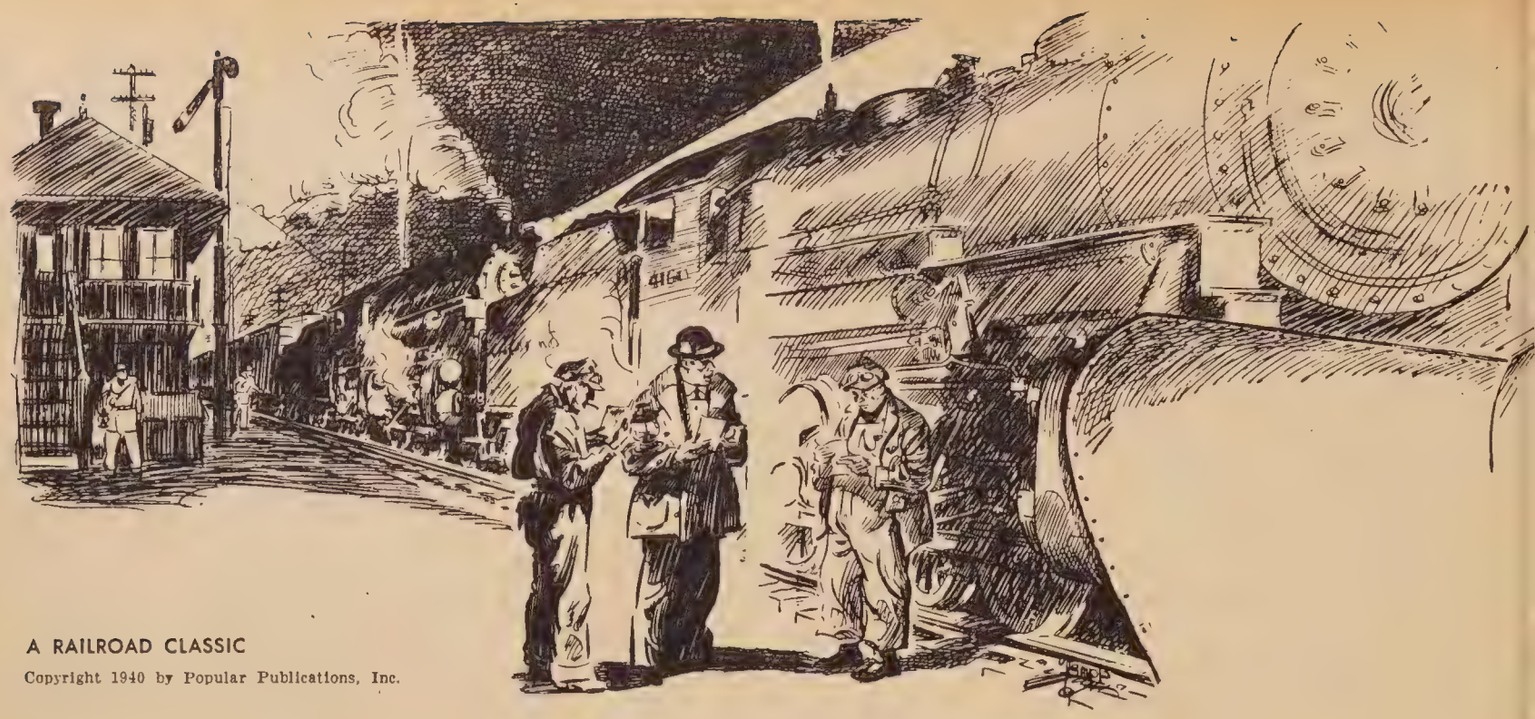

A RAILROAD CLASSIC

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It's a Long Way and a Long Time from the Coal Scoop of a Freight to the Throttle of a Limited—but Most of the Fun Is on the Way Up, and While You Are Climbing

ANYTHING'S LIABLE TO HAPPEN

A LOCOMOTIVE WHISTLE howled sharp warning to all lesser items of equipment as *The Ranger* cruised swiftly into the yard. She came to an arrogant stop beside the station. In no time at all her Mikado-type engine was detached from the flexible line of Pullmans and moved away to the roundhouse, while another polished black prodigy, steam up and rarin' to go, took her place.

Watching the scene from a fly-specked window upstairs in the yard office were three men of the same freight crew, each wrapped in his own thoughts. Two of them were hotblooded and restless; the third was seasoned with the years.

"Some day," predicted Billy Field, "I'll be pulling that beauty." Right now, though, his job was stoking a somewhat rusty Mallet. "Just you wait!"

"Yeah, maybe," said the redheaded "Windy" Fall, a young boomer brakeman from tough yards and tough roads, "but I won't be here to see it."

The Ranger's great driving wheels began to turn, and her bell clanged past a web of sidings where switch engines were tearing into an acre of freight cars. She hooted scornfully and flung herself at the far stretches of open country, flecked with Autumn's red and brown and gold.

"That's railroading!" sighed the fireman.

"Sure, it is," said Windy. He added reflectively: "And you're still a long way from it. A long way and a long time from the coal scoop of a freight to a hand on *The Ranger's* throttle."

"But most of the fun is on the way up," cut in the gray-haired skipper, Phil Louden, taking a pipe from his thin lips.

Billy gave a look of disbelief. For him, life began only when you pulled the fast ones. His sights were trained on the peak and he regarded the country in between as dull and hard, to be passed over as quickly as possible.

"You mean," he asked, "that kicking freight cars all over the yard and hauling them from one terminal to another is fun?"

Dreams weren't made of such drudgery. Billy had left his home in a sedate Quebec town, at the end of

by Harry Bedwell

high school and a brief apprenticeship in the Canadian Pacific shops, to seek adventure in the States and the thundering traffic of Western high iron.

The skipper was tall and wiry, with crow's feet on his forehead, but his eyes were bright and gray and kindly. "Yes, it's fun," he said. "No two trips are alike. Anything's liable to happen."

His gaze drifted over the yard where six-wheelers worried the stolid cars, like a pack of terriers, and swept beyond to the hazy smoke that marked a freight train ambling into the west.

Out there, country smells of earth and harvested crops came through the cupola window . . . The hand of a farmer raised in the ancient and universal salute of man passing man . . . Section workers with their tools along the right-of-way, and station men, cheerful and ironic, and harassed shippers always expecting the worst from the railroad . . . Night when the rain was cool on your face and sweet on your lips . . . The moon making an engaging mystery of all the moving world outside your caboose, causing you to remember the nights and the girls you had made love to . . .

Men who avoided the elements and the elemental, according to Phil's idea of things, never tasted the high flavor of life.

But the fireman maintained that romance and thrills lay with the streaking hotshots, where you split the seconds, and that speed was the glory of the railroad game, and none of these factors could be found in the crawling freights.

"Mister," he said, "all I do is bail coal and keep the fire clean and the boiler hot and full."

"You'd get a helluva lot more out of life," injected Windy, "if you didn't stay put on one job. Me, I go places. Next pay day I'm gonna buy me some new clothes and follow the wild ducks down South. That's my idea of fun. Go places."

Phil lapsed into silence. Railfaring men came here to the yard office before time to go on duty, and sometimes lingered after work, for gossip and news. Telegraph instruments wove a rippling thread of sound that ran incessantly through the bumble of voices. A group of switchmen were telling stories about dames of not too savory reputation.

A west end conductor, ready to take out the second section of the freight just departed, was checking the register. A hogger and a conductor, just in from the east, discussed the report they would make on the derailment of a tanker. There were facts to be shaded slightly and a combination of incidents to be stressed. It was a delicate problem in the use of words, requiring thought and some mighty close cooperation.

Matt Warren's raucous voice, cultivated in roaring engine cabs, interrupted these preoccupations. "Some guys go nuts about little things," he stormed. "Maybe they like bein' crazy. But I don't think so. It's bad when you kid yourself."

"Who's gone nuts?" an engine foreman looked up to inquire.

"Well," said Matt, "Phil here is feedin' us some hot stuff about the —er—romance of runnin' a freight train."

The other men stared at Conductor Louden as if he had just escaped from an institution.

"What do you mean, Phil?" asked the conductor from the east end. "Just shaggin' freight cars back and forth over the division makes sense?"

Phil nodded with a dry smile.

"Well," said the man from the east, "replacin' that tanker on the rails last night was interestin', all right. A helluva lot more than I liked! And now I've got to make this accident report sound reasonable, or the Old Man'll be dealin' me a flock of brownies."

Ed Freedom, Phil's head brakeman, said crisply: "Where's the fun chaining them up in a rainstorm? Or going over the top when she's slick with sleet? Or doubling the hill at twenty below?"

Ed hinted that he'd stayed here so long only because he'd made the mistake of bending his lantern over the head of an assistant superintendent on the Pennsy. If he had chosen a trainmaster instead, he considered, he wouldn't have had to flee so far nor remain so long.

"You and me understand each other," said the carrot-topped Windy Fall. "I remember the time . . ."

They were a hardy and lusty bunch, good to have around, Phil acknowledged to himself as he watched Matt Warren, Billy Field, and Ed Freedom clump down the stairs, with Windy at their heels, on their way to the roundhouse to fetch 72's engine.

THE FINAL rhythmic clucks as 72's caboose cleared the last switch points and rolled out onto the main line seemed to be a definite casting off from all substantial surroundings. At the terminals you were restricted and protected and shown about. But once free of the yard limits, you were pretty much on your own. You went by the timetable and the dispatcher's orders, but the dispatcher knew little of what you encountered except when you told him.

Windy turned the switch and waved a highball to the head end as he trotted after the caboose and swung aboard. Matt replied with two short whistle toots. The mutter of tightening drawbars ran toward them as the slack came out. The wheels clattered at rail joints in a growing cadence.

Phil gave Windy the train orders and passed inside. He put the trainbook and waybills on his desk, squared himself before it, and became engaged in his reports.

He was absorbed in a kind of split concentration, recording the details on the report with swift accuracy. At the same time he was aware of the many things transpiring on his train. He knew the flagman had mounted to his observation post in the cupola. The multitude of sounds that a freight train develops in motion told him how all the elements were performing. Without looking up, he knew the location of his train at any given moment by the sway of the

caboose and from the sound of wheels on the rails as it chuckled or ground on the curves.

The train had 44 cars, but the dispatcher's office had arranged it so there would be only 25 left when they reached Amber, where the grades began and where they would tie on a helper engine to take them up the hump.

Presently they paused to set out nine empty cars at the gravel pit and to take siding for Number 47. At Keller, a blind siding, they set out a car of oil meal and picked up two loads of alfalfa. An order in the waybill box requested two more cars for loading on Saturday. Phil put that in his book to be wired from the next telegraph office to the chief dispatcher, who was also car distributor.

He made out two bills-of-lading, signed them, and left copies in the box for the skipper. There were few agency stations along the line, and at these blind sidings the conductor did the clerical work — issued receipts and made out the waybills and blind-siding reports.

Phil climbed to the cupola as they moved on. The old Mallet lurched on the curves and steamed at every joint. She progressed in a melting cloud which seemed to float her away. The mountains ahead loomed steel-gray in the low sun. It was October, but the sun lay warm on the brown fields and bare orchards. A breathless tension in the air doped the senses. Windy sat on the opposite side of the doghouse and hummed.

At Cedar River, another blind siding, they set out a car of bran. While the boomer brakemen cut out the car and shoved it into the siding, Phil walked forward listening for the sound of leaking air in the train line, sniffing for the stench of the warm box.

A steely haze had crept far down the mountain. The stream that looped beside the main line was a gun-metal blue. A faint persistent smell of snow tinged the air. An old stub line branching off from the main stem crossed a bridge and slid from sight among the lofty pines.

The heavy atmosphere weighted his feet, and he swung them rapidly to shake off the inertia. An uneasy feeling began to work through him. He took out the big employes' timetable and studied it as he walked. They were right on schedule — in fact, crowding it a few seconds, he noted, as he checked his watch. Then an item under his eye made him suddenly alert.

Train operation is a complicated business, with a thousand details to keep in mind. Routine can wear down the keen edge of vigilance. That is when you overlook your hand.

There was a gasoline-motor coach on a tri-weekly schedule. On the days it operated, 72 should meet it at Bassett, a blind siding. But Bassett was now some eight miles behind them; 72 had rolled through it twelve minutes before! The gas-motor ran only on Tuesdays, Thursdays, and Saturdays, and Phil suddenly thought that this was one of these days.

Working irregular hours, day and night, with the days merging into one another and overlapping while you are on duty, dates become confused and have to be verified. Phil paused to consider.

This was the 24th of October. His train orders were so dated, and he had been using that date on his reports. By his reckoning, the 24th was Tuesday, and they should have waited at Bassett for the gas-coach; but just as simple and easy as that, in a kind of mental fog, the whole crew had overlooked this timetable meet—if this was really Tuesday. That didn't seem possible. But anything's liable to happen when you're running a freight train. He put the matter up to Matt.

THE HOGGER eyed his watch. "Damned if we ain't all overlooked our hands on that one! Five men handlin' this train, and nobody thought of the gas-wagon!"

Matt felt worried. He was an old-timer settled here for good. Besides the loss of seniority, he might have some trouble getting another job.

"Damnation, Phil! Do you think that crew of 31 will report us here?"

"Sure," said the conductor. "They'll have to protect themselves. And even if they didn't report us, somebody aboard the coach would."

"Have we got time to back up to Bassett?"

"No," said Phil. "We'd have to flag all the way back, and if 31 was that late the dispatcher would have given us time on her."

They stared up the main line in silence to where, at any moment, the motor-coach might swing into sight.

"I just don't see how we all overlooked her," Billy Field lamented. "And I was doing pretty well here, too!"

The Ranger's throttle receded in his mind. Billy was facing his first young tragedy. A low, revealing sun was about to set, but not soon enough to cover them with darkness and a chance to confuse the situation.

"And I was all set to buy me a new suit this pay day," said Windy. I really ain't got the clothes to start travelin' in."

A real boomer was careful of his appearance when he went drifting. The ill-clothed, the tramp, wasn't well regarded among his fellow craftsmen. Pride had most to do with it. When he braced the trainmaster for a job he liked to have a prosperous air and an easy manner—as if the job he applied for weren't of much consequence to him and he was only mildly curious about how the T.M. was fixed for men.

Windy had planned such a move as soon as he was fully outfitted for it. Maybe somewhere along the line he'd find himself a woman. He felt the need of a woman. So did Ed Freedom.

Ed moaned: "I figured to get married next pay day. Fanny won't like it a damn bit if I show up without a job."

"What shall we do?" Matt pleaded.

"Well," Phil considered, "we could hide the train in the trees down the branch a ways, till she gets by.

They've got rights over us and they don't give a hoot where we are, just so we're not in their way and they don't see us in the wrong place. None of the crew would say anything if they didn't see us at all. Suppose one of them did spot us, he'd pipe down quick if he thought it would get us in trouble."

But Matt shook his head. "That bridge," he said. "They condemned her ten years ago for the Mallets. It was built when this road didn't have an engine that'd weigh more'n ninety thousand pounds and that's the only kind they'll let on it now. This Mallet weighs a couple of hundred thousand, which is too much weight for the bridge. I still value my neck more'n my job."

"The Old Man's going to like this," Phil smiled, "a year or so from now, when I break the news."

Then he ordered briskly: "Ed, you get up there and open the switch to the branch. Then ramble on up the main line far enough to protect us from 31 while we cross over, if she shows before we get in the clear. If she doesn't show before then, you hide yourself and stay hid till she's gone by. Windy, you shut the switch when you come to the bridge, you and Billy unload and turn her loose. And likewise hide. I'll cross the bridge ahead of the engine and catch her on the other side. Now, everybody get moving!"

They understood his orders without fully grasping the plan, and they all obeyed. Ed sprinted for the switch stand as the Mallet coughed and moved. Phil turned down the branch and trotted onto the bridge.

"Hey!" Matt yelled. "What if she goes through the bridge?"

"She doesn't belong to you," Phil called back. "All you'll lose is your job—which is gone anyhow if we don't hide this train."

BILLY FIELD checked the fire and watched his hogger get the train into slow motion. He braced himself and strained with the clanking drivers.

Matt opened the throttle a fraction more, and the Mallet sneezed. Then, exerting his will, he gave the quadrant another inch. The heavy engine thumped over the switch-points, the train wriggling after her. As they neared the bridge, Matt slid from his seat.

"We'd better jump," he said hoarsely. "That chicken-coop ain't gonna hold us!"

He looked about the cab as if he were leaving a beloved spot for the last time. Then he sighed, took some personal effects from the seatbox, went down the steps, and dropped off. Billy followed him. They hid in the bushes under the bank. Matt glanced at his abandoned train creeping out upon the frail structure, and covered his eyes with his hands.

The bridge set up a thin squawling. It shuddered and flinched from all those unaccustomed tons of dead weight. But the Mallet ambled on without misgiving.

As Phil reached the other end, he looked back. The timbers moved. A piling sank deeper into the mud and the water about its base bubbled and showed streaks of yellow clay. The conductor murmured, "You've got to make it, oldtimer!"

He watched the caboose slowly clear the main line. Windy closed the switch and scrambled down the bank, joining the engine crew. The Mallet leaned far over to one side, like a tipsy man balancing on the curb, but righted herself with a shrug. The car tops looked like vertebrae of a crawling, bony reptile, twisting and rising and falling.

Just as the Mallet cleared the bridge, the honk of the gasoline-coach's air whistle came from the hills. Phil impatiently climbed into the cab and widened the throttle.

Drawbars grunted as the engine took hold and stormed. The conductor glanced at the stack. Billy had his fire burning right. Only thin smoke flared in the dying sunlight. He urged her into a growing speed and glanced up the main line as the tall trees crowded about him. The gas-coach wasn't yet in sight.

The caboose had glided into the shadows of wide branches before he shut off and let her coast for a thousand yards. Then he set the brakes.

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The gas-coach whistled again. She clattered over the switch-points on the main line and rambled away into the sunset.

Phil waited five minutes and then backed 72 across the bridge. Twilight was deepening when the Mallet rumbled cautiously back into the main line.

Matt groaned with relief. "That took about five years off'n my life, skipper. Next time I'll remember the gas-buggy."

They moved on. The mountains loomed overhead, the peaks flaming briefly red in the last of the sun. A penetrating wind slid down the heights. Darkness came on, and the Mallet's headlight probed the track ahead.

They stopped at Gage and picked up a car of steers for Amber. The shipper waited at the chute to sign the livestock contract. And then 72 again took up her clanking way through the quiet dark, with Amber the next stop.

AMBER was a cluster of station and yard lights huddled under the mountain wall. The wind had died. An echoing stillness was like the inside of a barrel.

They unloaded the steers. Ed Freedom cut off the locomotive and took her for coal and water. The helper, another Mallet steaming at every joint, followed 72's engine back from the main line and coupled on ahead. A blade snowplow was attached to her head end, ready to go to work.

"They're putting snow equipment on a little early this year," Phil remarked to the night operator as he stood beside the telegraph table, reading and signing train orders.

"Yeah, Louden," said the night man, "but you'll need it before you get up the hump. It started snowing up there this morning."

"Much?" Phil asked.

"Summit says about four inches there on top, but the last train down got here at 5:15 and reported it was worse down the grade. Cuts are filling up."

"We'll need more than a blade plow if it's that bad," the con decided. "We may have a blizzard."

"That's what the dispatcher's crying about right now. They figured first it would be a light snow, because it's early. But now they don't know. The dispatcher thinks they ought to have a rotary working on the mountain, but they haven't even got her out of the barn yet."

"Anyhow," said Phil, "we've got twenty dollars' worth of canned goods and smoked meat in the caboose, and plenty of coal, so we could survive a long while if we get stuck."

"That dispatcher is sure rattled," the operator went on. "He's making a straight meet between you and 17 at Dunbar, instead of giving you time on her. Says it's safer now. He says for you to make it, even if you have to bust something."

Phil walked forward with the others. A pressure bore down from the mountains. The world up there beyond the splash of station light was blank darkness, but he sensed that the heights resented and retarded the traffic that flowed over the ribbons of steel.

The two engineers awaited him beside the sighing Mallets. In the light of lantern and torch the three read and discussed the orders and the conjectured conditions ahead on the grades. Meet 17 at Dunbar. Number 8 to run an hour and fifty minutes late, Amber to Summit. Meet 73 at Corning instead of Oreland. The dispatcher was making some desperate guesses.

"Well," said Matt, "we'll get there, one way or another."

Bill Arnold, the helper engineer, folded the orders lengthwise and creased them. "We can try it, anyway," he said.

The three men under that dark wall, beside the locomotives, seemed to be midgets with a sublime effrontery to think they could challenge those heights with their dragging train.

They clattered out of the yard, and at once the big Mallets thundered at the grade. The exhausts exploded in sharp barks as the drivers took hold and strained, and echoes tumbled back upon them from the slopes in a blanket of dull sound. The temperature dropped slowly as they climbed.

Phil could feel the combined, dogged power of the two engines flowing the length of the train. Matt was working his Mallet with fine precision. He had his brake valve cut out so that only engineer Arnold handled the air. Arnold set the pace, which gave Matt the harder job of adjusting the power of his Mallet to pull half the load. He did this almost entirely by "feel," because it was hard for him to hear the exhaust of the engine ahead, while Bill Arnold could hear his more plainly.

A vague white blanket began to spread dimly on the ridges as snowflakes danced in the headlight glare. Thin plumes slid up from the blade of the plow and hung in the headlight and whirled away into the darkness. As the snow deepened, the blade thrust it up in sheets. The air was still and tense with silent flakes. The crack of the stacks slowed and sharpened. The pounding of the engines sounded muffled and far away.

Switch lights of a blind siding twinkled through the spindrift and slid by. The head end was a distant dim blur of baffled light and churning snow. The exhausts labored like strangled breathing.

In time the pace dropped to a crawl. Momentum ebbed and ceased. A lugubrious whistle sounded the call for a flagman.

Windy Fall swore. "Mebby you think flaggin' in this weather is romantic," he added resentfully; but he dropped down from the cupola, stuffed torpedoes into his pocket, and broke out fuses. Then he belted his sheepskin coat and took up a red lantern and a white one.

Phil Louden said: "We passed Shale, that last siding, about two miles back. Better keep on walking till you get there, but watch out we don't back into you. If those two Mallets can't make it, we'll return to Shale and get in the clear. You be careful to stay between the rails, because if you stray off we won't find you till Spring."

Windy drifted down the main

line. The red and white dots of his lanterns receded to specks of light and vanished in the curtain of snow.

MEANWHILE, Phil went forward over the tops. The crowding flakes wet his face and crept under his high coat collar. He found the two hogheads conferring soberly in the cab of the helper engine.

"Can't make it?" Phil asked.

"No," said Arnold. "Not with the train. I've been ahead for a look. The wind has drifted the cuts full, which is too much with the drag we have. It hasn't packed hard, though."

"Do you think you could get higher, to Dunbar, with your light engine?"

Arnold nodded. "I think so."

"If 17 can make it down the hump," the conductor said, "I'd like to relieve him of that meet at Dunbar."

You had to take each step deliberately, one at a time, when you bucked mountain snow. "Suppose we back down and get in the clear at Shale," Phil suggested. "Then we'll cut you off, Arnold, and try to go higher. What do you think?"

"We might try."

"Let's get back to Shale, then. Windy is flagging all the way, so take it easy."

Phil went back to the caboose and stood on the rear platform as 72 began a slow glide down the grade. All sounds were muffled; the wheels had lost their metallic click and rattle. Windy's lantern winked in the weaving white curtain, and a green welcoming light at Shale burned through.

Phil checked his train at the switch-points. "We'll take a look at the siding, Windy, before we back into it."

The rails ran along a bank. Phil discovered that much snow had drifted over them.

"Can't back in there," he said. "We'll tie up between the switches. Then I'll take the helper engine up to Dunbar, if we can make it, and relieve 17 of our meet. If he gets down, he can shove through the siding."

Windy caught the rear end as it came by, while his skipper stopped the head end clear of the east switch. After that, Phil instructed Ed Freedom: "Open that switch when the helper clears. And don't go to sleep as soon as we're gone. Anything's liable to come down that mountain."

Phil pushed under the storm curtains and gingerly climbed the slippery steps into the cab. The warm smells of oil and steam and wet coal were as cozy as the fireside odors of your home on a stormy night.

The fireman straightened in the deck and leaned upon his shovel. "A swell night for a game of poker," he said.

"You're sitting in a pretty stiff game right now," the conductor replied.

Bill Arnold opened her up carefully. The Mallet moved ahead in the white and silent world. Soundless crowding flakes slid down from the darkness and mingled with the thin plumes cast up by the blade. Together they defeated the cone which the headlight tried to thrust into the darkness. But Arnold sensed where the wall of snow had blocked him before, and he headed the Mallet into it at a speed that wouldn't jar her too much. The hog grunted at the impact. She checked and strained, and her stack spoke sharply. Arnold backed up.

Again the Mallet roared and charged. Sheets of snow washed over the boiler and made dull explosions as they fell on the cab roof. The foreground was blotted out. All you could see was a blur of flying white spume at the headlight, as the iron monster thrust it aside with snorting impatience.

The sense of direction and location that all good railroaders develop warned the crew as they neared Dunbar. Then the dim radiance of number 17's headlight sprayed through the flakes close at hand, and a green switchlight waved in the dark. Arnold whistled sharply and pulled up. Phil got down and went forward.

Seventeen's conductor stumbled forward from the coaches. The engineer came down from his cab, and Phil huddled with them in a quick consultation.

"It's snowing hard below," said Phil, "so you'd better go ahead and clear the way. I'll move the light engine in the siding here and let you by and then I'll follow you down the hump. My brakeman will put you through the siding at Shale."

He waded across to the switch and let Arnold into the siding. Seventeen slid into the scattering flakes and her tail-lights winked out down the grade.

"Give him only five minutes," said Phil. "Snow piles up fast and we've got no plow on the tender."

Arnold sat placidly on the seat, watch in hand, following the slow seconds as they ticked away. After five minutes he reached for the brake valve.

THE MALLET came down upon Shale as 17 headed into the siding. The passenger train moved around 72 and dropped from sight. After that, the two Mallets took their burden and labored on up the cleared track. Wind ripped through the snow clouds, scattering them wildly. A young moon broke through the rifts and glinted on the rolling white slopes. The stubborn snarl of the stacks echoed along the ridges.

From the cupola, Phil watched the resolute climb of the two roaring locomotives, moving the merchandise to its destination against the drag of the mountain and the fury of the elements.

At Summit, Number 72 took the passing track to let Eight go around them, and to cut off the helper engine. Phil thrust his head under the storm curtains for a brief "So long!" to Arnold. Dim station lights made a cheerful splash in the world of snow. The order board was red, and so was the big-bellied stove inside. Eight paused, then went winging down the grades.

The night operator glanced up at Conductor Louden from under his visor. He said politely: "Sign on the dotted line, mister," and offered a

"31" order and his stylus. "And here is a '19' in which the dispatcher gives an hour and 55 minutes on Number One. He says to make it to Savoy for her."

"We'll make it," said Phil.

The sounder rippled under the night man's fingers and then it spoke back as the dispatcher completed the "31".

"This snow sure snuck up on us all." The operator tore tissues from the pads. "I intended being in California before it hit. But I guess these mountain girls get your mind off business," he added cheerfully. "Well, stop in and see us again some time," and he whistled a brisk tune.

There was a clear, ringing quality to the thin air. Echoes ran and bounced from the high crags as the Mallet got 72 in motion and began the descent. She exulted under Matt Warren's skilled hand and took a swift gliding pace. A star winked at them through the fleeing clouds.

They made Savoy easily on the time they had on Nine, and headed into the siding. A rutted wagon road crossed the right-of-way and as the caboose thumped over the frozen crossing a glowing campfire, under the shelter of a rocky bank, suddenly blazed as someone fed it dry wood. A wind-blown figure stood against the firelight, outlined in a soft radiance.

Phil slid back the cupola window and thrust his head and shoulders into the cold night. He saw a girl silhouetted by the flickering glow. Sharp wind slapped her skirt and tugged at her hair. She raised a hand in quick gesture to the conductor, a friendly salute from one wayfarer to another.

Seventy-two muttered to a stand to wait for Nine. Windy Fall stamped in from closing the switch. The boomer set his lantern on the floor, took off his mittens, and warmed his red hands at the stove. Then he poured a mug of steaming hot coffee from the big pot, a jet of black fluid with a heady odor.

Phil took up his lantern. "Don't let Matt get away without me," he told the brakeman, and headed out the back door. A sly edge of the wind slid under his collar. Snow of the wagon road screeched under his feet. The girl beside the campfire watched him from under the high bank above the road.

Phil walked a few yards and smiled at her. The valiant figure was as warming as the crackling flames of her fire. She had on an old rough jacket and cowboy boots. But you hardly noticed her garb. Mostly you noticed the sparks in her eyes and the flushed brown of her cheeks where firelight and shadows romped.

"Hi, stranger!" she greeted.

"Hello yourself," Phil nodded. "This wind has teeth. Seems to me tough weather for camping out. And likely to get colder before morning."

"I don't mind, mister. We've got plenty of wood, and Pa's all right as long as I keep up the fire."

A roll of blankets against the bank stirred and a figure sat up. "Who is it, Jessie?" a sleepy voice asked.

"Man from that freight train," the girl said, "come to chat."

"Ain't you got hot coffee for him, Jessie?" the man inquired. "Runnin a train is cold work."

"Sure, there's a mite. It's been boiled once, but there's lots of strength in it. I'll put the pot on."

Hospitable to the last pinch of coffee, Phil reflected, and he said: "Thanks, no. We'll be moving on in a few minutes, and we've got Java in the caboose. How come you're camping here?"

"It was gettin' dark," the girl said, "and we found this washed-under bank and a dead tree for fire. It's a dandy place."

"Where are you headed for?"

"Silvertown." She spoke musically. "Drought and dust killed most of what we had on the ranch, so we pastured out the two cows with neighbors and we're goin' down to my brother's for the winter. He works for the railroad, too. He's got a nice job. We didn't reckon on this early snow, or we'd have started sooner."

She hasn't any misgivings, Phil thought. *Existence is uncertain and rigorous, but it doesn't daunt her.* His next question was: "How are you going to get there?"

"Walk," she grinned. "Pa's got to take it a little slow, 'cause the dust kind of got in his lungs. My brother, Joe Miller, says he's got a nice place all fixed up for us. I'm anxious to see it."

"But that's a long way," said Phil. "In bad weather, your Dad might have some trouble making it."

"Not me, son," drawled the man in the blankets. "I ain't got my walkin' legs limbered up yet. But they're comin' along. Don't you worry about me. If you see my boy Joe—he's an engine wiper—you tell him Jessie and me is comin' fine."

"Well," Phil deliberated, "you could ride with us. It would be a pleasure to have you."

"You mean on that train?" the girl asked jubilantly.

"Sure," said Phil.

"Is it allowable, son?" the old man wanted to know. "Ain't goin' to git you in trouble?"

"It's all right," Phil assured them. "Let's get your plunder together and climb aboard."

THE OLD wayfarer pulled on his boots and stood up. He was gaunt and he moved with slight uncertainty. But his eyes were aglow in the firelight. Their belongings were pitifully few: blankets and a gunnysack of personal effects, with little evidence of food.

Jessie chattered: "This way we'll reach Silvertown afore mornin', Pa. Won't Joe be tickled we got a ride on the railroad? I've rode coaches, but I bet a caboose is lots better."

Windy, stoking the stove, stared blankly at them as the three crowded into the crummy. He stood with the coal hod half raised and let the contents dribble onto the floor.

"I got us some passengers, Windy," said Phil. "Nice company and I know you will enjoy them. This is Jessie Miller and her Dad. Going to Silvertown with us."

The boomer set his scuttle down carefully. "I'm proud to meet you. How about a shot of coffee?"

"Better break into some of that

twenty dollars' worth of groceries," Phil advised, "and we'll all eat."

Windy smiled broadly. "Lady, give me your things and I'll stow 'em on the seat. I expect you're a sight better cook than me and I'd like you to fry the victuals yourself."

Free of her big jacket, Jessie appeared as brown and healthy as all outdoors. The girl was sharply alive to the strangeness of the caboose. She knew it was strictly male quarters, where men worked and ate and slept. The old glory-wagon was furnished with nothing but essentials, fitted expediently and with a rough eye to sheer requirements.

Jessie took it all in with swift rapture. "My goodness!" she exclaimed when Windy opened the cupboard and displayed the shelves crowded mostly with tinned food. "You've laid in your winter's supply, sure enough."

"Help yourself to anything you like," said Windy.

Slowly she went through the mental anguish of selecting from such a variety. Her father, meanwhile, sat by the stove and chuckled.

"This beats a circus," he said. "Haven't had so much fun since my old bull chased that bear out of the west pasture."

Outside, train Number 9, like a sheeted ghost, came howling up the long snowy grade and stamped by. Its tail-lights sparkled in the cold air.

"Windy," said the conductor, "I'll get the switch while you see to the grub, and he went out the back door."

Seventy-two rolled onto the main line again. Phil closed the switch and climbed aboard. As he re-entered the caboose, Windy was saying:

"Now look here, Miss Jessie Miller, you ain't fixin' enough food."

The freight train wound swiftly down the mountain. The snow on the ground faded out in the lower altitudes, and was left behind. Phil, in the cupola, brooded over the cheery domestic scene that had suddenly developed in the caboose. The sizzle of edibles in the pan came up to him through lively chatter. Jessie swayed to the lurch of the winding train, but Windy was always handy to steady her. He was very attentive.

The meal which the two finally produced was quite substantial. Afterward, Windy and Jessie together cleared up the dishes, and Pa Miller packed his pipe from Phil's tobacco tin. Phil lit his own pipe. The train mumbled and clicked contentedly as Matt wheeled them off the mountain. A breath from the desert below took the bite out of the air. The old man nodded.

"Now, you folks climb in the bunks and take a snooze," Windy invited. "It'll be a good while before we reach Silvertown and we got pickups and setouts to make."

Jessie examined the boomer's bunk. "Of all things!" she said. "Who made this up? Look like it'd been done with a pitch-fork."

"Well, now," Windy admitted, "I was in a little hurry when I done that up. You fix it to suit yourself."

DIM QUIET settled in the rolling caboose. Windy engaged himself with pleasant reflections. Occasionally he grinned. He glanced at Phil across the doghouse, started to remark, but failed to find the exact words to fit the occasion. A twinkle came to Phil's eyes. He realized it wasn't much use to tamper with the eddies and currents of life. They usually took you along their way, anyhow.

The moon had set and it was dark as coal when they rolled into the Silvertown yard. Windy roused the two sleepers. Then he went out to close the switches behind them. The train halted at last, and the boomer came in to help the two guests to assemble their effects. Jessie had trouble keeping her blue eyes open. She stumbled about and murmured sleepily.

Engineer Warren guided the Malled onto a long parallel siding. Then he checked to pick up Phil and Windy and drop them off at the yard office on the way to the roundhouse. The boomer brakeman bustled up to Phil.

"Listen," he said, "Jessie is all tuckered out and I guess I'd better help them over to her brother's place. Don't you think so?"

"Yes," Phil agreed. "I think you should."

"That makes it fine," said Windy. "He lives over beyond the yard office. Do you suppose Matt would mind if they rode that far on his engine? It's quite a walk and Jessie's pretty tired and he's goin' that way anyhow."

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"You'd better ask Matt."

Matt Warren made the whistle moan softly as he waited. Billy Field stood in the gangway and stared from bulging eyes as the four people got down from the caboose. The hogger, in the cab window, gulped and swallowed his chew of tobacco.

"Hey, Matt," Windy called up. "This is Jessie Miller and her Pa. I'm takin' them to her brother's who's a wiper and lives over beyond the yard office. Care if we all ride that far with you?"

The old engineer looked first at Windy and then at his conductor. Phil winked solemnly.

"Why, of course, Mr. Fall," said Matt. "Take you anywhere you want. Step right up!"

The head brakeman, Ed Freedom, got down from the fireman's seat. "Guess I didn't notice when you made this pickup," he muttered. "You ought to keep the smoky end informed about what goes on."

Jessie leaned confidingly against Windy and dozed as they threaded their way through the switches. Pa Miller chuckled.

"Ridin' in a caboose, with board and bunk," he said. "And now we got delivered in the engine. Joe's goin' to be tickled pink about this."

They stopped at the yard office and Windy helped the two Millers to climb down the vertical steps.

"Much obliged, fellows," he called back. "I'll be seein' you."

The old man made his best manners, and Jessie waved a limp hand at the engine crew. Then she took hold of Windy's arm as they moved across the yard.

Matt didn't start the Mallet at once. He grinned at Phil and replaced the swallowed chew with a fresh one. "Looks like now mebby we got a reformed boomer brakeman on our hands."

Phil watched the long, ambling Windy under a load of blankets and gunnysack of household goods, with a sleepy young lady clinging to him as he stepped away beyond an arc light into the darkness.

"You can't ever tell," the conductor said to Matt as he prepared to get down. "Anything's liable to happen." ●

STUDENT FIREMAN

GEORGE A. McCARRON, 2537 Greta Place, San Luis Obispo, Calif., recalls an unusual incident that occurred on the Santa Fe's Valley Division, Third District.

"About 16 years ago," he writes, "when I was a kid fireman, the road was using Classes 1200 and 1300 Pacifics in chain-gang service, with the Dearborn boiler compound. This compound had to be mixed in a bucket with hot water from the squirt hose before it was emptied into the tank prior to taking water.

"All railroads operating in areas where water was very hard followed this procedure. The compound was introduced into the boiler through the injector or water-pump and it settled suspended mineral matter in the boiler, thus saving the engine from having to work water and thus lose the benefit of dry steam.

"When Locomotives equipped with water-pumps left town, usually the injector kept supplying the boiler with compounded water until the engineer had his train accelerated to the point where he could begin 'hooking her up.' Then the water-pump would be started, the injector was shut off, and the water-pump supplied the boiler until the next stop, when the process was repeated.

"This was done because the compound lost most of its effectiveness while going through the heater portion of the feedwater pump. By the time water entered the boiler it was not prepared to keep the boiler settled as well as water coming from the injector.

"One night I was called for chain-gang service on a fast freight, No. 44, with Engr. O.O. McKemey on No. 1239, a Pacific type which boasted two non-lifting injectors, one on each side. The run from Richmond to Riverbank, Calif., was easy. We had no feedwater problem, and steam pressure stood at a fairly constant level.

"Being a hotshot freight, we did not enter Riverbank yards but, to save time, the engine was serviced and the crew changed on the main line. No. 1239 was equipped with an Elesco feedwater pump, on the left side, along with a small hydrostatic lubricator. The injector was on the right side.

"While we were waiting, McKemey asked if I'd ever before fired an engine with a water-pump. 'No,' I replied. He then said we'd leave Riverbank using his injector in order to settle the water in the boiler and that when he gave a sign I should start my water-pump.

"By the time I finished taking water and checking the firebox for carbon, Mac got a highball. Making sure that the reverse gear was in full forward position, he released the independent air and eased open the throttle. After stretching out the slack we really got down to business and did a real job of ballast-scorching.

"I finished sanding the engine out. Mac yelled in my ear, 'Start the water-pump!' This I did. Shutting off his injector, Mac closed the water and overflow valves. With her diet of injector-fed water replaced by pump-water, the 1239 reacted sharply. The feedwater pump stroked merrily, but the steam gage dropped.

"Try as I would to force the fire, increase the atomizer, and sand the engine out, I could not prevent a deep freeze from settling over the 1239. By the time we reached Norman yard, at Stockton, our air-pump had quit and the train brakes were setting up.

"Mac told me, with some heat, that he'd gladly put me out at Norman yard if another fireman were available. But with real forebearance he inquired, after I had blown the 1239 hot, if I thought I could fire the engine to Richmond by using his injector. "I'll do my best," I said. Then, after a parting shot about my having loused up a meet with No. 63, he completed the trip at a gait more in accord with No. 44's ability. I really learned about feedwater pumps that night." ●

The Milwaukee Road

Bi-polar electric locomotive wheeling the Milwaukee Road's *Olympian Hiawatha* through the pine-forested Cascade Mountains.

Many years ago, when the public first became streamline-conscious, these beauties were designed for the Coney Island line.

NEW YORK SUBWAY-EL CARS

CITY-BUILT EQUIPMENT, ALL DIVISIONS

Numbers	Type	Division	Year	Builder
100— 399	R1&R2	IND-BMT	1930-'31	ACF
400— 899	R4&R5	IND-BMT	1932-'33	ACF
900—1149	R-6-3	IND-BMT	1935-'36	ACF
1150—1299	R-6-2	IND-BMT	1936	Pullman St.
1300—1399	R-6-1	IND-BMT	1936	Pr. Steel
1400—1474	R-7	IND-BMT	1937	ACF
1475—1549	R-7	IND-BMT	1938	Pullman St.
1550—1599	R-7A	IND-BMT	1938	Pullman St.(11)
1600—1649	R-7A	IND-BMT	1939	ACF
1650—1701	R-9	IND-BMT	1939	ACF
1702—1802	R-9	IND-BMT	1940	Pr. Steel
1803—1852	R-10	IND-BMT	1948-'49	ACF
3000—3349				
8010—8019	R-11	IND-BMT	1949	Budd
5703—5802	R-12	IRT	1948	ACF
5803—5952	R-14	IRT	1949	ACF
5953—5999	R-15	IRT	1950	ACF
6200—6252				
6300—6499	R-16	IND-BMT	1954-'55	ACF
6500—6899	R-17	IRT	1955-'56	St. Louis
7050—7299	R-21	IRT	1956-'57	St. Louis

IRT DIVISION

Numbers	Type	Built	Builder	Description
3350—3516	Hi-V, AMRE, modified motors	1904	ACF	Gibbs Cars(1)
3517—3649	Hi-V, AMRE, MUDC motors	1904	ACF	Gibbs Cars(1)
3650—3699	Hi-V, AMRE, modified motors	1907	ACF	Deck Roofers
3700—3756	Hi-V, AMRE, modified motors	1909	ACF	Standard Hi-V's(10)
3757—3809	Hi-V, AMRE, MUDC motors	1909	ACF	Standard Hi-V's
3810—3849	Hi-V, AMRE, MUDC motors	1909	St. Steel	Standard Hi-V's(2)
3850—4024	Hi-V, AMRE, MUDC motors	1909	Pr. Steel	Standard Hi-V's(3)
4025—4036	Lo-V, AMUE, MUDC motors	1915	Pr. Steel	Steinways
4037—4160	Lo-V, AMRE, MUDC motors	1915	Pullman	Flivvers
4161—4214	Lo-V, ATRE, MUDC trailers	1915	Pullman	Flivvers
4215—4222	Lo-V, AMUE, MUDC motors	1915	Pullman	Steinways(4)
4223—4514	Hi-V, ATRE, MUDC trailers	1915	Pullman	Standard Hi-V's(9)
4515—4554	Lo-V, ATUE, MUDC trailers	1916	Pullman	Standard Lo-V's
4555—4576	Lo-V, AMUE, MUDC motors	1916	Pullman	Steinways
4577—4699	Lo-V, AMUE, MUDC motors	1916	Pullman	Standard Lo-V's
4700—4770	Lo-V, AMUE, MUDC motors	1916	Pullman	Steinways(5)
4771—4810	Lo-V, AMUE, MUDC motors	1916	Pullman	Standard Lo-V's(5)
4966—5302	Lo-V, AMUE, MUDC motors	1917	Pullman	Standard Lo-V's
4811—4965	Lo-V, ATUE, MUDC trailers	1916-'17	Pullman	Standard Lo-V's
5303—5402	Lo-V, ATUE, MUDC trailers	1922	Pullman	Standard Lo-V's
5403—5627	Lo-V, AMUE, MUDC motors	1924-'25	ACF	Standard Lo-V's
5628—5652	Lo-V, AMUE, MUDC motors	1925	ACF	Steinways
5653—5702	Lo-V, AMUE, MUDC motors	1938	St. Louis	World's Fair (Steinways)

BMT DIVISION, ELEVATED EQUIPMENT

Numbers	Description	Type	Built	Builder
1300—1349	Gate motor	BU	1905	Cincinnati
1350—1374	Gate motor	BU	1906	Jewett
1375—1399	Gate motor	BU	1906	Laconia
1600—1629 A,B,C	World's Fair	Q		(6)

BMT CARS

A: Single-unit standard 67' steel motor car. Length 67' 6", width 9' 8 7/16", height 12' 11/16", weight 94,693 pounds, seats 78, stands 182, HP 280.

B: Three standard 67' steel motor cars semi-permanently coupled.

BX: A standard 67' trailer car flanked by two standard 67' steel motor cars semi-permanently coupled.

D: Three-section articulated train, with 4 trucks. Length 130' 2¾", width 9' 9 7/16", height 12' 13¼", weight 211,042 pounds, seats 160, stands 395, HP 800.

MS: Five-section articulate cars with 6 trucks. Length 179', width 9' 9", height 12', weight 181,767 pounds, seats 188, stands 514. PSC HP 840, St. Louis HP 720.

Budd MS: Five-section articulate car with 6 trucks. Prototype for above. Length 169' 6", width 9' 10", height 11' 7½", weight 159,250 pounds, seats 170, stands 496, HP 840.

BU: Convertible steel open-end elevated cars with swing-over seats. Length 48' 11", width 9' 1½", height 13' 1", weight 79,471 pounds, seats 51-62, stands 70-98, HP 300.

Q: One rebuilt wooden elevated trailer car flanked by two rebuilt wooden elevated motor cars. Converted from gate cars to MUDC cars by enclosing ends, moving the motorman's cabs and cutting holes for side doors. Have maximum traction trucks. Length 40' 5", height, 12' 5", width 8' 7¾", seats: A&C 50, B 52; stands 108, weight: motor 70,598, trailer 57,000 pounds.

Note: A, B, BX, D, and MS have monitor roofs. Budd MS has turtle-back roof (arch roof). BU and Q have railroad roofs.

CITY-BUILT CARS

R-1—R-9: Standard pre-war IND-type subway car, has monitor roof, four door openings per side. Length 60' 6", width 10', height 12' 1 15/16", weight 85,000 pounds, seats 56, stands 224, HP 380.

R-10—R-14: Monitor roof. IND-BMT cars have four door openings per side. IRT cars have three openings per side. IND-BMT cars: Length 60' 6", width 10', height 12' 1 15/16". Weight: R-10, 77,000 pounds; R-11, 70,000 pounds (stainless steel car). Seats 56, stands 234, HP 400. IRT cars: Length 51' ½", width 8' 9½", height 11' 10 13/16", weight 74,000 pounds.

R-15: Arch roof, false ceiling, Axiflo fans, door controls in motorman's cab. Dimensions same as R-12 IRT cars.

R-16: Arch roof, false ceiling, Axiflo fans, door controls in motorman's cab, public address system, staggered doors. Dimensions same as R-10.

R-17—R-22: Have Arch roof, false ceiling Axiflo fans, door controls in motorman's cab, public address system, staggered doors. Length 51' ½", width 8' 9½", height 11' 10⅞", weight 80,000 pounds.

NOTES, ABBREVIATIONS

Roster lists all NYCTA subway-el cars in service Jan. 1, 1957, but does not include all the consecutive numbers in any series, such as 100-399.

All BMT subway A, B, BX, and D motors are Lo-V, AMUE; B trailers are Lo-V, ATUE, MUDC. MS is Lo-V, straight air with blended dynamic or Eddy current brakes, MUDC.

Regarding City-built equipment on all divisions: R-1—R-9: Lo-V, AMUE, MUDC. R-10—R-22: Lo-V SMEE, MUDC. Cars on order: 450 R-22 from St. Louis Car Co., but no number assignments for them as of Jan. 1, 1957.

Builders: St. Steel means Standard Steel, Pr. Steel means Pressed Steel, and Pullman St. means Pullman Standard.

Numbers in parentheses after builders' names indicate the following notes:

(1) 3514 is an MUDC motor.
(2) 3815 is a modified motor.
(3) 3915 is a modified motor.
(4) Converted to Steinway in 1929.
(5) 4719 converted to Standard Lo-V; 4771 converted to Steinway.
(6) A & C units (motors) built by Laconia in 1903 and 1907, Jewett 1907, Osgood-Bradley 1903, Brill 1903; B units (trailers) built by Osgood Bradley 1903, Brill 1903, and Laconia 1903.
(7) 2399 is an A type, renumbered to 2330, which had been wrecked.
(8) 2500 is an A type.
(9) 4223—4250 were motorized. They are motorized trailers, with M under their numbers.
(10) There are seven regular Hi-V's (non-modified motors) in this series. Used as work equipment.
(11) 1575 was rebuilt by ACF with an R-10 body in 1947. It retains the old electrical equipment and air brakes.

Hi-V — High voltage, manual acceleration. Cars have white line under number.
Lo-V—Low voltage, automatic acceleration.
MUDC—Multiple-unit door control; one man can operate doors of many cars.
Modified motors, hand-operated end side doors, air-operated center doors with electric circuits running through car so that they may operate with MUDC cars. They are used at ends of the train.

BRAKE EQUIPMENT

AMRE: Automatic, motor, R type triple valve, electric brakes.
ATRE: Automatic, trailer, R type triple valve, electric brakes.
AMUE: Automatic, motor, Universal valve, electric brake.
ATUE: Automatic, trailer, Universal valve, electric brake.
SMEE: Straight air, motor, emergency feature, electric brake.

IRT CARS

GIBBS CARS: Original all-steel subway equipment designed by PRR engineers of the same name. Originally had two end side doors on each side. Later, IRT cut center side doors on each side. They are 51' ½" long, 8' 10" wide, 12' high, seat 44, stand 152, HP 400. Modified cars weight 85,780 pounds, MUDC cars 89,170 pounds. The car body has a solid storm (end) door, railroad roof.

DECK ROOFERS: All-steel equipment designed by IRT. 51' ½" long, 9' 7/16" wide, 12' high, seats 44, stands 152, weight 83,780 pounds. Car body has deck roof and glass-paned storm door. Side door story same as Gibbs cars. HP 400.

STANDARD HI-V'S: Standard all-steel IRT car body with railroad roof. 51' ½" long, 8' 10" wide, 11' 10½" high, seat 44, stand 152, weight of motor car 77,500 pounds, HP 400. Will MU with above two classes.

STEINWAYS: All motors, lightweight cars to operate through Steinway tunnel with 4½ percent grades. 51' ½" long, 8' 10" wide, 11' 10½" high, seat 44, stand 152, weight 74,906 pounds, HP 400. These cars have standard IRT steel car bodies. Red line indicates they are Steinways. Will not MU with cars other than Steinways.

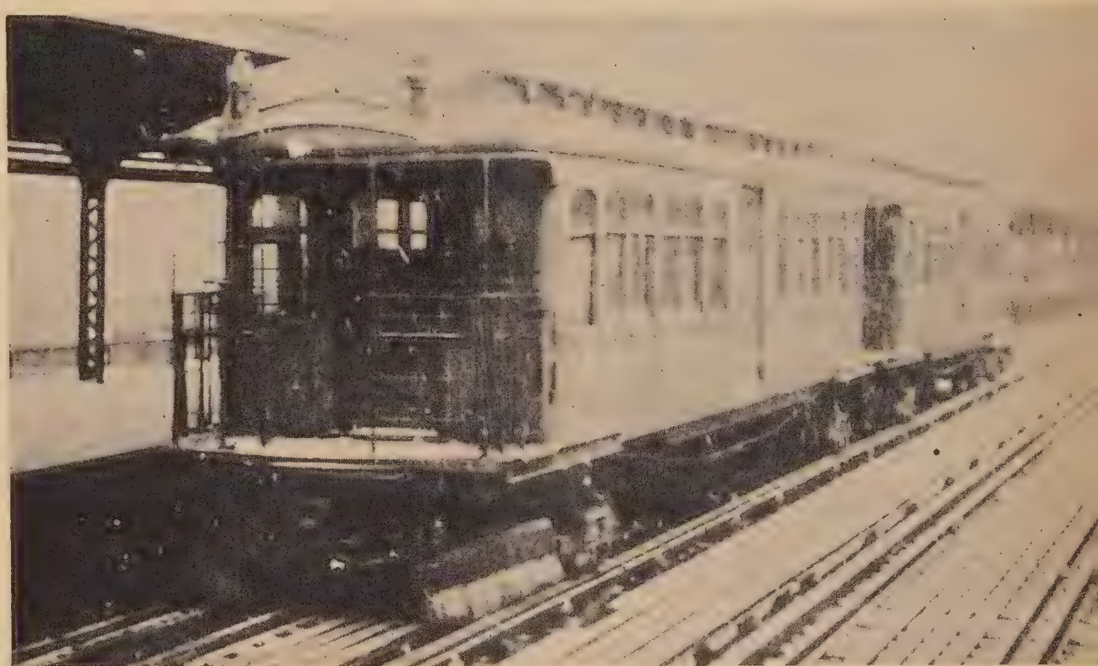
FLIVVERS: Originally Hi-V cars, converted by IRT to Lo-V's. Retained Hi-V controller and AMRE brakes. Standard IRT steel car body. Dimensions same as Deck Roofers except weight of motors 77,700 pounds. No distinguishing marks. Will MU only with another Flivver.

STANDARD LO-V'S: Standard all-steel IRT car body with railroad roof. Dimensions same as Steinways except motor weight is 78,730 pounds and trailer weight is 59,690 pounds. No distinguishing marks. Will MU only with other IRT AMUE Lo-V's.

WORLD'S FAIR: Have end side doors toward center to create permanent motorman's cab. Distinctive roof design. Will MU with Steinway equipment. Length 51' ½", width 8' 6¾", height 11' 10⅝", weight 75,130 pounds, 400 hp.

Test train on Myrtle Avenue El consists of two BU cars, one Q, one BU.

Clark Bluebirds, 8000-8005, first PCC rapid-transit train, now scrapped.



Snow-sweepers, built by Pullman in 1888, were originally passenger cars.

All photos on this page by Sy Reich, 92 St. Marks Place, New York City

BMT DIVISION, SUBWAY EQUIPMENT

2000—2399	67' Steel motor	B	1914-'17 (100 per yr.)	ACF(7)
2400—2499	67' Steel motor	BX	1918	ACF
2500—2599	67' Steel motor	B	1919	ACF(8)
2600—2749	67" Steel motor	A	1920-'21	Pr. Steel
2750—2899	67' Steel motor	B	1921-'22	Pr. Steel
2900—2924	Ex-SIRT motors		1925	Pr. Steel
4000—4049	67' Steel trailers	BX	1924	Pr. Steel
6000—6120	Triplex cars	D	1925-'28	Pr. Steel
7004—7013	Multi-section cars	MS	1936	St. Louis
7014—7028	Multi-section cars	MS	1936	Pullman
7029	Multi-section car	MS	1934	Budd

Gordon S. Crowell, 24 Morris Crescent, Yonkers, N. Y.

Steam-powered till the end, the little Sylvania Central operated a mixed train daily except Saturday and Sunday through 14.7 miles of rural eastern Georgia between Sylvania and Rocky Ford, connecting with the big Central of Georgia. At times the train had only two cars, but Engineer L. R. Thompson was mighty proud of Old 103, his Baldwin 4-6-0, built in 1905.

Books of the Rails

by P. C. GRAVES

HANDBOOK OF AMERICAN RAILROADS, by Robert G. Lewis, Simmons-Boardman Books, 30 Church St., New York, N. Y., 250 pages, $3.95.

A comprehensive breakdown of the nation's 113 Class 1 railroads, with short histories, revenues, personnel, equipment and miscellaneous information. Included are action photos of crack trains as well as route maps and index. A handy and interesting reference book.

HENRY VARNUM POOR, by Alfred D. Chandler, Jr., 362 pages, Harvard University Press, Cambridge, Mass., $6.50.

The first part of this book is devoted to Mr. Poor's work as editor of the *American Railroad Journal*, before the Civil War, and as editor of the *Manual of the Railroads of the United States* in the post-war years.

Poor's ability to compile and disseminate information kept him in touch with the problems that arose from the early expansion of our railroad network. His *Manuals* are still valuable reference works, particularly to readers interested in the histories of American railroads, big or little, current or long forgotten.

Mr. Chandler, a great-grandson, compiled the book from Poor's writings, family papers, and other reliable sources, which add up to a readable book, in spite of many statistics.

WILL NOT RUN FEB. 22nd, by Caskie Stinnet, 188 pages, illustrated by Bill Ballantine, Rhinehart & Co., 232 Madison Ave., New York, N. Y., 2.95.

This is strictly for commuters—a weird and wonderful segment of paying guests that ride the rails from bed to business—and back. The folkways of the typical commuter fall into established patterns. He is a member of the élite (or card-playing fraternity), he sleeps, he reads, he makes friends—or enemies, as the case may be—and invariably carries packages. At times the author reaches, but by and large the book is fun to read.

SCOTTISH RAILWAYS, by O. S. Nock, Thomas Nelson & Sons, 385 Madison Ave., New York, N. Y., 214 pages, $6.25.

A country which gave birth to James Watt is bound to have a romantic heritage in railroading, which Mr. Nock has traced from early days to the present.

Enriching the book are 14 beautiful color plates, plus black-and-white photographs, and a "performance" record of locomotive types.

BRITISH RAILWAYS IN ACTION, by O. S. Nock, Thomas Nelson & Sons, 227 pages, $6.25.

British railways are among the most heavily worked of any in the world, and the book is concerned with problems of congestion, particularly the lines that flow out of the large cities to holiday resorts. Steam is still king in Great Britain, but the changeover to electric traction is imminent.

Mr. Nock has put together some interesting contrasts in equipment, personnel and presentation. The book is sedate, and some Americans might find it heavy going. But it has glamor and romance, and excellent photography to illustrate many facets of operation.

COLLECTING MODEL TRAINS, by Louis H. Hertz, Simmons-Boardman Books, 352 pages, 5.75.

A leading authority in this field traces its beginnings back to the early '30's. Originally an offshoot of model railroading, train collecting has become a hobby in its own right—a fascinating and rewarding one.

Mr. Hertz covers all angles, and his pictures include a fine collection of miniatures—tinplate toys and scale models.

AAR RESEARCH ACTIVITIES — 1956, 44 pages, Research Center, Ass'n. of American Railroads, Technology Center, Chicago, Ill. Free.

The fifth annual report of the AAR's Research Center in the new Technology Center of the Illinois Institute of Technology in Chicago.

HOW TO GET A JOB THAT TAKES YOU TRAVELING, by Norman D. Ford, 72 pages, Harlan Publications, Greenlawn, N. Y. $1.

There's a wide variety of jobs in transportation, as the honorary vice president of the Globe Trotters Club explains in 75,000 words.

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Canadian National train 78, with engine No. 5575, photographed by Gordon S. Crowell at Cornwall, Ontario, in July, 1954.

Renumbering of CANADIAN NATIONAL *Locomotives*

SINCE we ran a complete roster of Canadian National locomotives in October, 1953, many changes in numbering and classification have been made. Elwin K. Heath, of Barre, Vt., has compiled the following data showing changes and additions to the diesel-electric roster as well as the renumbering of certain steamers whose original numbers were assigned to new diesels. The renumbering of steam is dated June 1, 1956.

The changes in classification were made for clarity and simplicity. For example, switcher No. 7930 was formerly Class Q-6-a. Her new classification is MS-10-a. The first letter is a symbol for the builder, in this case Montreal or Alco. The second shows general type. (The second letter for a road switcher would be R, for a passenger engine, P, and so on. A road switcher equipped with a steam generator would be MRG.) The figures give horsepower, here 1000, and the sub-class letter indicates change in weight, difference in year build, etc.

STEAM

Old	New
4-6-0	
1111	1498
1117	1499
1119	1500
1121	1501
1123	1502
1125	1503
1129	1504
1131	1505
1133	1506
1135	1507
1138	1508
1139	1509
1140	1510
1145	1511
1147	1512
1150	1513
1152	1514
1157	1515
1158	1516
1162	1517
1163	1518
1164	1519
1223	1520
1274	1521
1278	1522
1284	1523
1294	1524
1309	1525
1307	1526
1311	1527
1314	1528
1315	1529
1321	1530
1322	1531
1324	1532
1325	1533
1327	1534
1328	1535
1330	1536
1332	1537
1333	1538
1334	1539
1335	1540
1336	1541
1337	1542
1338	1543
1339	1544
1340	1545
1347	1546
1348	1547
1349	1548
1350	1549
1351	1550
1354	1551
1355	1552
1357	1553
1359	1554
1360	1555
1362	1556
1364	1557
1365	1558
1367	1559
1370	1560
1371	1561
1372	1562
1373	1563
1374	1564
1375	1565
1376	1566
1377	1567
1378	1568
1380	1569
1381	1570
1382	1571
1383	1572
1384	1573
1387	1574
1389	1575
1390	1576
1391	1577
1392	1578
1393	1579
1395	1580
1396	1581
1397	1582
1401	1583
1402	1584
1404	1585
1405	1586
1406	1587
1408	1588
1409	1589
1427	1590
1429	1591
1433	1592
1438	1593
1439	1594
1444	1595
1446	1596
1447	1597
1448	1598
1451	1599

2-8-0	
2200	2195
1981	2196
1982	2197
1983	2198
1984	2199

2-8-2	
3523	3522
3198	3523
3199	3524
3702	4045
3703	4046
3704	4047
3705	4048
3706	4049
3708	4050
3709	4051
3710	4052
3711	4053
3712	4054
3714	4055
3715	4056
3716	4057
3717	4058
3719	4059
3720	4060
3722	4061
3726	4062
3727	4063
3728	4064
3729	4065
3730	4066
3731	4067
3732	4068
3733	4069
3734	4070
3735	4071
3736	4072
3737	4073
3738	4074
3739	4075
3740	4076
3742	4077
3743	4078
3744	4079
3745	4080
3746	4081
3747	4082
3748	4083
3750	4084
3751	4085
3752	4086
3753	4087
3754	4088
3755	4089
3756	4090
3757	4091
3800	4092
3801	4093
3802	4094
3803	4095
3804	4096
3805	4097

0-6-0	
7250	7300
7253	7301
7220	7305
7225	7306
7228	7307
7234	7309
7238	7310
7239	7311
7240	7132
7242	7313
7243	7314
7244	7315
7245	7316
7311	7318

0-8-0	
8201	8430
8204	8431
8205	8432
8206	8433
8207	8434
8208	8435
8209	8436
8210	8437
8211	8438
8212	8439
8213	8440
8215	8441
8216	8442
8218	8443
8219	8444
8220	8445
8221	8446
8222	8447
8226	8448

DIESEL-ELECTRIC LOCOMOTIVES

ROAD SWITCHERS

Road	Old No.	New No.	New Class	HP	Builder, Date
CN	1500-1501	*1-2	ER-4-a	380	GE 1947
CN	on order	3-5	ER-4-b	380	CGE 1956
CN	1526-1543	*26-43	ER-6-a	600	GE 1950
NFLD	on order	800-805	GR-9-b	875	GMD Ltd. 1956
NFLD	900-902	900-902	GR-12-a	1200	GMD Ltd. 1952
NFLD	903-908	903-908	GR-12-b	1200	GMD Ltd. 1953
NFLD	on order	909-934	GR-12-g	1200	GMD Ltd. 1956
CN	1570-1574	*1100-1104	GR-9-a	875	GMD Ltd. 1953
GTW	1505-1508	*1200-1203	GR-12-c	1200	EMD 1955
CN	1575-1592	*1204-1221	GR-12-d	1200	GMD Ltd. 1955
CN	1593-1597	*1222-1226	GR-12-e	1200	GMD Ltd. 1955
CN	2300-2320	*1227-1247	GR-12-f	1200	GMD Ltd. 1956
CN	on order	1248-1268	GR-12-h	1200	GMD Ltd. 1956
GTW	on order	1269-1270	GR-12-j	1200	EMD 1956
CN	1600-1614	1600-1614	CR-12-a	1200	CLC/FM 1951-2
CN	1615-1617	1615-1617	CRG-12-b	1200	CLC/FM 1951
CN	1618-1621	1618-1621	CR-12-c	1200	CLC/FM 1952
CN	1622-1629	1622-1629	CR-12-d	1200	CLC/FM 1953
CN	1630-1639	1630-1639	CR-12-e	1200	CLC/FM 1955
CN	1640-1649	1640-1649	CR-12-f	1200	CLC/FM 1956
CN	1544-1548	*1700-1704	MR-10-a	1000	MLW/CGE 1955
CN	1549-1554	*1705-1710	MR-10-b	1000	MLW/CGE 1955
CN	on order	1711-1729	MR-10-c	1000	MLW/CGE 1956
CN	1841-1858	*2200-2217	CR-16-a	1600	CLC/FM 1955
CN			CRG-24-a	2400	CLC/FM 1955
CN	1800-1817	*3000-3017	MR-16-a	1600	MLW/CGE 1953
CN	1818-1840	*3018-3040	MR-16-b	1600	MLW/CGE 1954
GT	1861-1862	*3041-3042	MR-16-d	1600	Alco 1954
CN	1863-1869	*3043-3049	MR-16-e	1600	MLW/CGE 1955
CN	1870-1877	*3050-3057	MR-16-f	1600	MLW/CGE 1955
CN	1878-1880	*3058-3060	MR-16-g	1600	MLW/CGE 1955
CN	1881-1885	*3061-3065	MR-16-h	1600	MLW/CGE 1955
CN	on order	3066-3073	MR-16-j	1600	MLW/CGE 1956
CN	on order	3074-3093	MR-16-k	1600	MLW/CGE
DW&P	on order	3600-3614	MR-18-a	1800	Alco
CV	1859-1860	*3900-3901	MRG-16-c	1600	Alco 1954
CN	1700-1723	*4350-4373	GR-15-a	1500	GMD Ltd. 1953
CN	1724-1750	*4400-4426	GR-17-a	1750	GMD Ltd. 1955
CN	1751-1765	*4427-4441	GR-17-b	1750	GMD Ltd. 1954
GT	1768-1775	*4442-4450	GR-17-d	1750	EMD 1956
CN	2000-2004	*4451-4475	GR-17-f	1750	GMD Ltd. 1955
CN	2025-2044	4476-4495	GR-17-f	1750	GMD Ltd. 1956
CN	on order	4496-4501	GR-17-g	1750	GMD Ltd.
CN	on order	4502-4538	GR-17-h	1750	GMD Ltd.

GTW	on order	4539-4546	GR-17-j	1750	EMD 1957
CV	on order	4547-4557	GR-17-j	1750	EMD 1957
GTW	on order	4558-4559	GR-17-j	1750	EMD 1957
GTW	1766-1767	*4900-4901	GRG-17-c	1750	EMD 1955
GT	1777-1781	4902-4906	GRG-17-e	1750	EMD 1956
GTW	on order	4907-4922	GRG-17-k	1750	EMD 1957
CV	on order	4923-4927	GRG-17-k	1750	EMD 1957

SWITCHERS

Road	Old No.	New No.	New Class	HP	Builder, Date
GTW	73	73	LS-5-a	500	Brill 1929
GTW	74	74	ES-5-a	500	GE 1947
CN	77	77	LS-4-a	400	CLC/West. 1930
GTW	78-79	78-79	GS-6-a	600	GMD Ltd. 1938
NFLD	775-777	775-777	ES-4-a	380	GE 1948
CN	7000-7009	7000-7009	GS-12-a	1200	GMD Ltd. 1953
GTW	7010-7014	7010-7014	GS-12-b	1200	EMD 1952
GTW	7015-7016	7015-7016	GS-12-c	1200	EMD 1953
GTW	7017-7019	7017-7019	GS-12-d	1200	EMD 1955
CN/GTW	7020-7030	7020-7030	GS-12-e	1200	GMD Ltd. 1956
CN	7031-7033	7031-7033	GS-12-f	1200	GMD Ltd.
CN	8500-8521	*7150-7171	GS-8-a	800	GMD Ltd. 1951
CN	8522-8533	*7172-7183	GS-8-b	800	GMD Ltd. 1952
CN	8535-8559	*7200-7224	GS-9-a	900	GMD Ltd. 1954-'5
GTW	on order	7225-7232	GS-9-b	900	EMD
CN	7900-7901	7900-7901	GS-10-a	1000	EMD 1941
GTW	7902	7902	GS-10-a	1000	EMD 1941
CN	7904-7914	7904-7814	GS-10la	1000	EMD 1941
CN	7936-7945	7936-7945	GS-10-a	1000	EMD 1946
CN	7956-7965	7956-7965	GS-10-a	1000	EMD 1947-'8
CN	8016-8025	8016-8025	MS-10-c	1000	MLW/CGE 1951
GTW	8026	8026	MS-10-d	1000	Alco 1953
CV	8027	8027	MS-10-d	1000	Alco 1953
CN	8028-8033	8028-8033	MS-10-e	1000	MLW/CGE 1954
GTW	8034 8035	8034-8035	MS-10-f	1000	Alco 1955
CN	8036-8077	8036-8077	MS-10-g	1000	MLW-CGE '55-'56
CN	8078-8079	8078-8079	MS-10-h	1000	MLW/CGE 1955
CV	8080-8081	8080-8081	MS-10-j	1000	Alco 1955
GTW	8082	8082	MS-10-j	1000	Alco 1955
GTW	8083-8090	8083-8090	MS-10-k	1000	Alco 1955
GTW	7915-7916	*8091-8092	MS-10-a	1000	Alco 1942
CV	7917-7919	*8093-8095	MS-10-a	1000	Alco 1942
GTW	7920-7929	*8096-8105	MS-10-a	1000	Alco 1944
GTW	7930-7935	*8106-8111	MS-10-a	1000	Alco 1946
CN	7946-7955	*8112-8121	MS-10-a	1000	Alco 1947
CN	7975	*8122	MS-10-a	1000	MLW/CGE 1948
CN	7976-7994	*8123-8141	MS-10-a	1000	MLW/CGE 1949
CN	7995-8005	*8142-8152	MS-10-b	1000	MLW/CGE '49-'50
CN	8006-8014	*8153-8161	MS-10-b	1000	MLW/CGE 1950
CV	8105	*8162	MS-10-b	1000	MLW/CGE 1951
CN	on order	8163-8195	MS-10-l	1000	MLW/CGE
GTW	on order	8196-8202	MS-10-m	1000	Alco 1957
	on order	8203-8205	MS-10-n	1000	Alco 1957
CN	8450-8461	8450-8461	MS-7-a	660	MLW/CGE
CN	8462-8463	8462-8483	MS-7-b	660	MLW/CGE
CN	8484-8498	8484-8498	MS-7-c	660	MLW/CGE

PASSENGER LOCOMOTIVES

Road	Old No.	New No.	New Class	HP	Builder, Date
CN	6500-6512	6500-6512	GPA-17-a	1750	GMD Ltd. 1954
CN	6513	6513	GPA-17-b	1750	GMD Ltd. 1955
CN	on order	6514-6522	GPA-17-c	1750	GMD Ltd.
CN	6600-6612	6600-6612	GPB-17-a	1750	GMD Ltd. 1954
CN	6613	6613	GPB-17-b	1750	GMD Ltd. 1955
CN	on order	6614-6620	GPB-17-c	1750	GMD Ltd.
CN	6700-6705	6700-6705	CPA-16-a	1600	CLC/FM 1954
CN	6706-6711	*6750-6755	MPB--161-a	1600	MLW/CGE 1955
CN	6800-6805	6800-6805	CPB-161a	1600	CLC/FM 1954
CN	6806-6811	*6850-6855	MPB-161a	1600	MLW/CGE 1955

FREIGHT LOCOMOTIVES

CN	9000-2-3-5	9000-2-3-5	GFA-15-a	1500	EMD 1948
CN	9001-4	9001-4	GFB-15-a	1500	EMD 1948
GTW	9006-9027	9006-9027	GFA-15-a	1500	EMD 1948
CN	(E)9028-9054	(E)9028-9054	GFA-15-b	1500	GMD Ltd. '51 (X)
CN	(O)9029-9055	(O)9029-9055	GFB-15-b	1500	GMD Ltd. 1951
CN	(E)9056-9062	(E)9056-9062	GFA-15-c	1500	GMD Ltd. 1951
CN	(O)9057-9063	(O)9057-9063	GFB-15-c	1500	GMD Ltd. 1951
CN	(E)9064-9142	(E)9064-9142	GFA-15-d	1500	GMD Ltd. 1952
CN	8700-2-4	*9300-2-4	CFA-16-a	1600	CLC/FM 1952
CN	8701-3-5	*9301-3-5	CFB-16-a	1600	CLC/FM 1952
CN	(E)8706-8744	*(E)9306-9344	CFA-16-b	1600	CLC/FM 1952
CN	9400-9407	9400-9407	MFA-15-a	1500	MLW/CGE 1951
CN	(E)9408-9426	(E)9408-9426	MFA-16-a	1600	MLW/CGE 1951
CN	(O)9409-9427	(O)9409-9427	MFB-16-a	1600	MLW/CGE 1951
CN	(E)9428-9436	(E)9428-9436	MFA-16-b	1600	MLW/CGE 1952
CN	(O)9429-9437	(O)9429-9437	MFB-16-b	1600	MLW/CGE 1952
CN	(E)9438-9456	(E)9438-9456	MFA-16-c	1600	MLW/CGE 1952-'3

MISCELLANEOUS NOTES, SYMBOLS, INITIALS

(*) Renumbered in 1956, (E) even numbers only, (O) odd numbers only, (X) No. 9048 removed from service.
C—CLC/FM—Canadian Locomotive Co., Fairbanks-Morse Company
E—GE—General Electric Company, Canadian and U.S.
G—GMD Ltd. and EMD, General Motors Diesel, Ltd., GM's Electro-Motive Division
L—J. G. Brill Company
M—Montreal Locomotive Works or American Locomotive Company
MLW/CGE—Montreal Locomotive Works, Canadian General Electric
FA road freight "A" unit, FB road freight "B" unit, PA road passenger "A" unit, PB road passenger "B" unit, R road switcher, RG road switcher with steam generators, S switcher.
Roads: CN Canadian National, CV Central Vermont, GT Grand Trunk, GTW Grand Trunk Western, NFLD Newfoundland.

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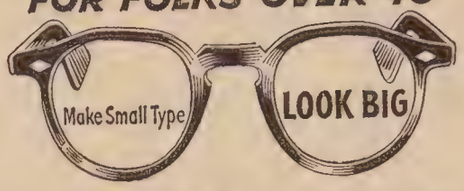

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(Continued from page 9)

engines were bought from the Frisco and still retain their old numbers in the 1600 series. Engineers like them because of their wide tires. ●

FUN on an Eight-wheeler that he shared as a boy with Sinclair Lewis (later a famous novelist) is recalled by English-born Arch Billing, 919 N. Olive St., Anaheim, Calif.

"My family came to America and settled at Tower, Minn., on the Duluth, Missabe & Iron Range," Arch writes. "Two switchers (diamond-stacked No. 27 and cap-stacked No. 13) pulled trains through our alley. Sometimes they stopped behind our house and I would take out coffee and cookies to the crews. As a reward, they let me ride in the engine cab.

"In 1895 we moved to Sauk Centre, where I went to school with the red-headed Sinclair Lewis. The future author of *Main Street* and *Dodsworth* joined me in secret raids on the one-stall Great Northern roundhouse. This little building was pretty well hidden from sight by huge grain elevators and it housed the 4-4-0 that took a mixed train to Park Rapids and back every day. As soon as the crew pulled her fire and went home for the night, Sinclair and I would sneak down there, open the big doors, climb into the cab, and use what steam was left to back her out as far as we dared. We'd keep running her until the steam was practically all gone. Then we'd roll her across the turntable again into her stall and close and lock the doors. But I don't think Sinclair ever mentioned these escapades in his writings.

"How did we open the lock? Easy! One day a baggage car with a pulled drawbar was set out at Sauk Centre and in it I found a switch key. That key let us into the roundhouse." ●

THREE Eight-wheelers are still running on the Canadian Pacific. This fact comes from several readers, correcting a statement in our February issue that 4-4-0's had become extinct. R. J. Sandusky, R.R. 6, Brampton, Ont., Canada, writes:

"Nos. 29, 136, and 144, built in 1887, '83, and '86 respectively, are currently in use on the CPT's Minto subdivision between Chipman and Norton, N. B. One of them at a time runs daily except Sunday with a mixed train, while the other two are stored in the Chipman engine shed. All three are kept in A-1 mechanical condition and are retained on the line because of certain weight restrictions on bridges."

Nos. 144 (upper) and 136, two of the only three 4-4-0's left in service in Canada. Both operate on Canadian Pacific Railway's Minto Subdivision in New Brunswick.

Omer S. A. Lavalee, 6959 De l'epee Ave., Montreal, Canada

We learn from C. Warren Anderson, 224 Brunswick St., Fredericton, N. B., Canada, that Rogers built No. 136, and CPR the other two at Montreal.

"No. 136 is Canada's oldest active locomotive," writes Homer S. A. Lavallee, president, Canadian Railway Historical Society. "Built as No. 140, she was renumbered 140 in 1905 and 136 in 1912 and rebuilt several times. Each of the three Eight-wheelers alone weighs about 115,000 pounds. Nos. 136 and 144 have 63-inch driving wheels and 15,000 pounds tractive effort. No. 29 has 70-inch driving wheels, 3,000 t.e. The 44.6-mile line over which all three operate was the New Brunswick Coal & Ry. Co., acquired by CPR about 30 years ago."

"The Moscow, Camden & St. Augustine (see *Information Booth*) currently has in service a 2-6-0 engine, No. 201, and a 2-8-0, No. 6, and ex-Long Island combine No. 512," writes George C. Werner, 1211 Melbourne, Houston, Texas. "Another Mogul is running on the 2-mile Augusta Railroad (freight only) in Arkansas."

Bob Kirsop, 101 University Terr., Athens, Ohio, reports having seen 3 or 4 Moguls on the Canadian National's branch line around Hamilton, Ont. "Last summer," he says, "I rode behind one of them on a mixed train. With diesels almost everywhere, it's a thrill to find a 2-6-0 on a regular passenger run."

Adding to H. L. Kelso's list of eight-wheeled locomotives still preserved, Eric D. Edwards, 53 Gamble Ave., Toronto, Canada, mentions a Duluth & Iron Range Mogul that stands in a park at Two Harbors, Minn., beside a wooden hopper car and a caboose of the same period. ●

WHICH parts of *Railroad Magazine* do *you* enjoy most? Larry Mc-

Carty of Ft. Collins, Colo., prefers illustrated articles about steam power, locomotive rosters, the *Information Booth,* steam power lists, and book reviews. Floyd Warne of Brooklyn, N. Y., complains: "You devote too much space to locomotives. There is a lot more to railroading than motive power."

A SECTION COOK on the White Pass & Yukon, Mrs. Eunice Covington, c/o WP&Y Glacier Section, Skagway, Alaska, tells us that stub switches are still being used in the WP&Y yards but not on the road.

Allen Myer wrote in our December *Running Extra*: "I know of several WP&Y tunnels under the international border between Alaska and British Columbia." Mrs. Covington denies this. "There is only one," she writes. "It is in Alaska on the Glacier Section, 16 miles from Skagway. The Glacier and White Pass section have five snowsheds, one of which crosses the Alaska-B.C. boundary."

HARRY BEDWELL's literary style delights an old retired brass collar, Edward H. DeGroot, Jr., 1309 Spring St., N.W., Washington, D. C., who was a trainmaster and later a division superintendent on the Chicago & Eastern Illinois while Harry was booming around the country. He points out that many writers use the cliche, "The train ground to a stop," but that Harry's trains, with more originality, "grunted," "checked and snailed," "clanked," etc., according to circumstances. As for boomers, Ed says:

"They knew railroading, and when the C&EI had a rush of business it was mighty good to have a few of them show up. One of our boomer engineers, known as 'Dutch,' never failed to get his train over the road. A home-guard freight conductor named Tom complained to me that his hoggers weren't making the time with No. 55, a hotshot; so we put Dutch on 55. Two days later Tom came back to me and said:

" 'Mr. DeGroot, that man Dutch I had on my last trip is plumb crazy. I'll never go out with him again.'

" 'Why?' I asked. 'Didn't he make the time?'

" 'Time? Why, he ran so fast that I thought the caboose would turn over. He didn't shut off for anything. He's dangerous.'

"That was long ago. Some boomers were hard to handle, but I do not recall one who was ugly or impudent. I really enjoyed Bedwell's story, 'Wanderlust,' in the April issue."

PRIVATE CAR COMPANIES. According to *The Pocket List of Railroad Officials,* 483 corporations which are not railroad companies own railway cars and operate them over U. S. railroads. A few corporations have but one car apiece. Each of the two biggest outfits, General American Transportation Corp. and United Tank Car Co., both of Chicago, owns upwards of 50,000 cars.

Among the others are Pacific Fruit Express Co., 37,097 cars; Shippers Car Lines, 13,797; Fruit Growers Express, 13,205; Merchants Despatch Transportation Corp., 7,588; North American Car Corp., 7,000, and Western Fruit Express, 6,143. The list does not include the seven U. S. Government agencies which own fleets of railway cars ranging from two to 7,179 units.

PERSONALITIES. Charles Morrow Wilson, author of the lead feature articles in our current and April issues, is well qualified to write about the Rutland. He lives in Vermont (3 Western Ave., Brattleboro) and used to be a railroad man himself, having worked with the location engineer on the Southern of Costa Rica and on other jobs with the Banes and Preston sugar roads in Cuba. Besides that, he has done a lot of railroad reporting for magazines and newspapers. His brother was a boomer engineer in Arkansas, his father-in-law a Union Pacific and Rock Island brakeman.

Alfred Krull of Antigo, Wis., a retired Chicago & North Western conductor, has at least one distinction. While in Paris in 1878 he saw the Statue of Liberty before it was sent to America and erected in New York Harbor.

At dawn the other day a careless Espee switchman backed a boxcar into the bedroom of a home at Houston, Texas, killing a family of three. Said he: "The spur holds 19 cars, but I miscounted and put 21 in it." This news comes to us from Robert Bruhin of Ada, Oklahoma.

Jersey Central's No. 1 commuter, Edward Taylor, Westfield, N. J., has been riding 68 years between his home and his New York City place of business. On his 82nd birthday CNJ president E. T. Moore treated him to breakfast de luxe in railroad business car 97.

A "seeing eye" dog was killed by the first train it ever saw. It belonged to Ella Mae Peck, a blind North Carolina college student. The Southern Railway is buying her a new dog for about $1,250 and will include safe track-crossing in its specialized training.

"I was greatly surprised to see my picture on February *Railroad's* front cover," writes C. W. Whitman, retired C&NW conductor, now operating a cafe at 143 S. Jefferson St., Lancaster, Wis.

Hedda Hopper wrote about Mrs. Dwight D. Eisenhower in a widely-syndicated column: "Mamie doesn't care for flying and tells me she won't get into Ike's two-engine plane in spite of his assurance that it is very safe and can land in far more places than larger planes. She said: 'I told him that four engines are not too many for me. Some day I hope to be on the board of directors of a railroad company; then I'll have a pass and can travel where and when I like.' "

Shortly after midnight near Gerlach, Nevada, a Western Pacific fast freight hit a stalled automobile and boosted it down the tracks. The driver, Nick Lucero, and three companions got away in time, but they left a little white poodle inside. It took an entire section crew to peel off the twisted auto from the front of the diesel locomotive—and then the pooch poked out his head from the wreckage, scared but unhurt!

A family tradition of working for the Pennsy that spanned 98 years and reached back four generations ended the other day when Howard C. Gillingham hung up his conductor's cap for good. "Gillie's" great-grandfather was a hogger, his grandfather a trainman, his father an assistant freight trainmaster, and his mother a ticket agent. Gillie himself railroaded 46 years. His last run was on *The Senator,* Boston-Washington express.

CASCADE TUNNEL, America's longest railroad bore (see Feb. issue), is not unique in having steel doors at each end. Two tunnels on the old narrow-gage East Broad Top Railroad & Coal Co. in Pennsylvania, had roll-down steel doors that were used in winter to keep ice from forming on the rails.

Another steel door—a flood-gate—is located at the eastern portal of the

Bud Rothaar, 757 Pierpont St., Rahaway, N. J.

Eighty-car ore train on the Pennsylvania Railroad, doubleheaded by Nos. 4407 and 4619, leaving Sunbury, Pa., in 1955.

Pennsy's Hudson River Tunnel, where traffic leaves and enters Penn Station, New York. The flood-gate was installed for emergency use and is controlled from Tower A. So says H. L. Hampton, Pennsy passenger conductor, 69 W. Hazelwood Ave. Rahway, N. J. ●

HIGH in the rimrocks, 10,200 feet above sea level, Nedra's father, David W. Greear, works as agent-yardmaster for the Denver & Rio Grande Western. It's tough there, especially in winter, for Leadville is in the big-snow belt and has the heaviest intra-plant switching of any point on the Rio Grande system. Leadville played a great role in the old West. This fabulous mining town faces Mt. Ebert, the nation's second highest peak. On July 23, 1880, long before Nedra's grandfather went firing for the Union Pacific, Leadville took a day off to greet its first train—a D&RG special with General Grant on board! The town likes to celebrate. Recently Nedra held the spotlight as queen of an annual fete.

Nedra Greear

Her father began railroading as a section man in 1932. He's had a goodly share of excitement—snow and rock slides, derailments, and a track washout that kept him on duty 72 hours without relief. At one time, when he was working as a night ticket agent at Glenwood, a cloud burst flooded the passenger depot, leaving behind nearly eight inches of mud.

Nedra looks a bit like Marilyn Monroe. She's a blonde freshman at Colorado State Teachers College but lives in Leadville, Colo. (Box 322). Her 19th birthday is April 30th. ●

CENSUS of 1860 reported a total of 464 railroads in the United States. Only 16 of them are operating today under the names listed at that time. These are: Boston & Maine; Long Island; New York Central; Central of New Jersey; Delaware, Lackawanna & Western; Delaware & Hudson; Pennsylvania; Baltimore & Ohio; Western Maryland; Richmond, Fredericksburg & Potomac; Central of Georgia; Georgia; Illinois Central; Louisville & Nashville; Chicago, Burlington & Quincy, and Chicago & North Western. ●

PARKING SPACE. The Long Island Rail Road and dozens of communities along its lines are teaming up in a mass assault on the problem of what to do with commuters' automobiles. Results have been uniformly good. During the past year or so the amount of public parking space at or near railroad stations has been doubled. In some cases the benefits extend beyond the railroad; added parking space is provided for nearby shopping centers as well as commuters.

"Unfortunately, we don't own property suitable for parking at all our stations," says Thomas M. Goodfellow, LIRR president and general manager. "But where we do have suitable land that isn't essential for other purposes, we'll continue to turn it over to the communities for unrestricted parking." *Unrestricted* is a key word. The Long Island refuses to limit its facilities in any town to the local residents. ●

"WHO remembers 'The Dynamite,' a Burlington train that ran between Hannibal and Louisiana, Mo., carrying workers to and from a Du Pont powder plant?" asks Roy Cluck, 608 Central Ave., Hannibal, Mo. A young division super posted a bulletin banning that nickname, but crews ignored his ban. One morning the callboy at Hannibal awoke Engineer Charlie Cort and told him, "Wancha for the Louisiana extra at 8:15 a.m."

"Okay, son," the hogger said sleepily. "What are we going down for?"

"I don't know, sir. It's the run that goes to Louisiana every day."

"You mean The Dynamite?" the hogger wanted to know.

"Yes, it's sometimes called that."

"Sometimes?" roared Charlie. "Say, kid, when you want me for that run, you say Dynamite. I like to know what I'm doing."

Roy Cluck was then a second-trick operator. He recalls an exciting ride he had one dark night on The Dynamite, with Charlie at the throttle of engine 1121. Roy clung to the footboard on the tender, riding backward at high speed against a howling wind. He was scared stiff. They had orders to pick up a carload of explosives that stood on a curve just south of a switch, obscured from view, with no block signal to protect it. The throttle artist finally stopped a few feet from the dynamite car. He told Roy, "Thought I'd give you a thrill." ●

BRAINS and beauty characterize Gloria Magdaleno, an engine-crew dispatcher's daughter, now attending the University of Arizona with three scholarships. Gloria lives at 958 Third Ave., Yuma, Ariz., collects timetables, snaps train photos, and occasionally rides a caboose. One of her grandfathers helped to build the El Paso & Southwestern across three states. Her father, Frank Magdaleno, has been with the Southern Pacific since 1925. Two uncles and five cousins also went railroading.

Gloria Magdaleno

"As a callboy," her father says, "I held the graveyard shift for 15 years. During that time the last wave of boomers went through this area. Every callboy had to own a bicycle. Today the company supplies motorcycles or automobiles to its crew dispatchers, as we are now called, but most of our work now is done by phone. A few crew dispatchers are women." ●

THROUGH SERVICE. You can take some really long train rides without changing cars, according to C. T. Steeb, 615 8th Ave., San Diego, Calif. For example:

Starting at Florida City, Fla., you go to Miami, then Jacksonville, Atlanta, Birmingham, Kansas City, Billings, Spokane, Everett, Vancouver, B. C., Prince George, and Prince Rupert, grand total 4,663 miles.

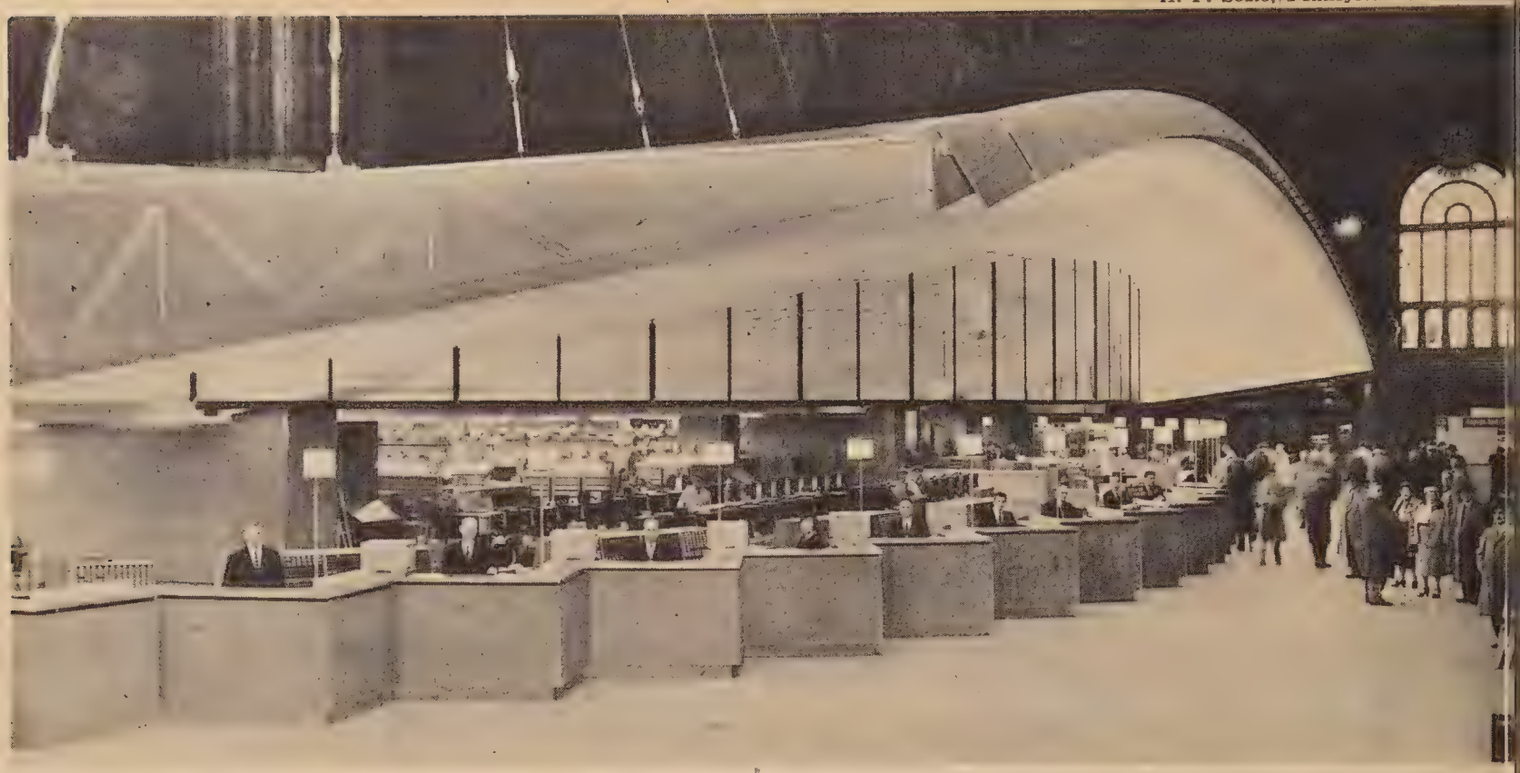
Or travel from Halifax, N. S., to Montreal, Chicago, Los Angeles, and San Diego, 4,038 miles.

Or leave Boston en route to Albany, Buffalo, Chicago, Omaha, Ogden, and San Francisco, 4,054 miles. ●

MORSE telegraphy is still being used in railroad operation to some extent in southern California, reports Daniel Grotty, 1155 Shenandoah Rd., San Marino, Calif. The Santa Fe has two wires between Los Angeles and San Bernardino through Pasadena, one of which extends as far as Needles, and there are others on the Santa Fe, UP, etc., too numerous to list here.

"I became interested in Morse about four years ago, when I was 15," he writes, "when I found an old set in the physics lab at my school. I hooked it up and began learning the code. Next, I obtained some old equipment from an SP station and set it up at home, where I practice in my spare time. Howard Fagg, the Santa Fe agent at Claremont, gave me a few lessons. I can now

A. F. Sozio, Pennsylvania Railroad



New shape emerges in New York's Penn Station: the world's largest closed-circuit TV installation. Under a canopy of light in the main waiting room is Pennsylvania Railroad's electronic Ticket and Service Bureau. Television receivers at counters bring information about space available directly from interior of Bureau to the point of sale. There are 170 miles of wiring.

send the code pretty well but can't receive worth a darn. Sending Morse is much more of a thrill than talking by long-distance phone. But my main interest is steam locomotives." ●

ROLLING BACK the years, Jim Bullard tells how he began work on the Rock Island away back in 1904, thus starting a long career from which he recently retired as a conductor. His memories center around Eldon, Mo., where he lives today at 201 S. Locust Street.

"All winter I had been bucking the switchmen's extra board on the Missouri Pacific at the old Webster Street yards in Omaha," he recalls. "It was a bitterly cold winter, 1903-'04. I didn't kick very much, because those monthly visits to the pay car kept me alive. The Mopac wasn't doing so well in those days, with cracked rails and wornout ties, with leaky old engines, and not much traffic, but the Helen Gould management did some fine things for us.

"On March 13th business grew so lean that it shoved me off the extra board and I went to St. Louis.

"Then my luck changed. While I was discussing our prospects with a fellow rail named Ryan a stranger came over to us and asked, 'Are you two looking for work?' brakemen I said, 'You bet we are.' And he said: "Okay, you go to the office of the St. Louis, Kansas City & Southern in the Frisco Building and tell them that Tom Ennis sent you to get jobs at Eldon.'

"The new line was being built across the state, with its western end in the mud about 40 miles west of Kansas City. There were seven of us on the little train who went there seeking jobs. We all hired out, all but Ryan; the mud was too much for him. That was Thursday, St. Patrick's Day. It was also pay day on the new railroad, and when our train chugged into town the men were celebrating with red-eye. We arrived in time to see the village marshal load a bunch of drunken and disorderly trackmen into a dray and head them for jail, the maudlin celebrators waving their hats and singing the songs of old Ireland. On that day the dispatcher put out a now-famous order:

> All trains approaching Eldon:
> Approach under complete control expecting to find men on or near track unable to move.

"After deadheading 17 miles west of Eldon, I started braking on a work train for the Rev. Bill Johnson. We had no caboose but plenty of mud and rain. Each night we tied up at Versailles, Mo., end of track for freight and passenger service from Ft. Smith. The Rock Island had made a deal whereby it would take over the new railroad as soon as it hit Kansas City.

"We had a lot of antiquated engines, mostly from the Rock Island. They looked like Civil War relics and they leaked and creaked with the wind and rain. Our muddy fills kept sliding and causing derailments. Boomers came and went. Few lasted more than a few weeks. Why be a mud-horse when you can get the same pay with less mud on the Wabash or Mopac? But I stuck.

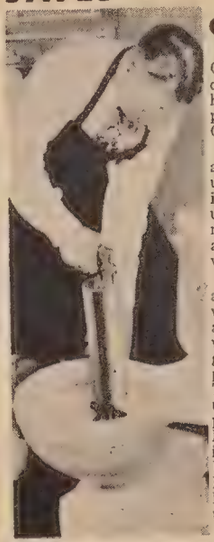
"At first I made only 22 cents an hour, but this rate skyrocketed to 23 cents when I broke on through freight. We had a ten-hour day, with overtime pay at the same rate. During the month of May I earned a grand total of $89.78, which was big money in 1904.

"Pretty soon passenger service began operating out of Kansas City via the Frisco, the Katy, and our road, and how those streaks of varnish burnished the rails that summer! Everybody wanted to see the big Exposition—'Meet me in St. Louie, Louie'—and plenty of days three-section trains roared out of K.C.

"When a long, shiny, Pullman string thundered down the line, the grimy brains and brakies on the wornout work extras would gaze at them and sigh, each man doubtless thinking how he'd look with all those brass buttons and gold stripes on his sleeves. It was that kind of hope which kept us going—away back in 1904." ●

Pennsy No. 439, Class B6, takes on sand at Camden, N. J., engine terminal.

NEW DISCOVERY SAVES PLUMBING BILLS



CLEANS INSTANTLY

CHICAGO—April 1st—Home Owners, Offices, Apartments, including Factories are constantly having trouble with clogged-up pipes which proves expensive in Costly Plumbing Bills—

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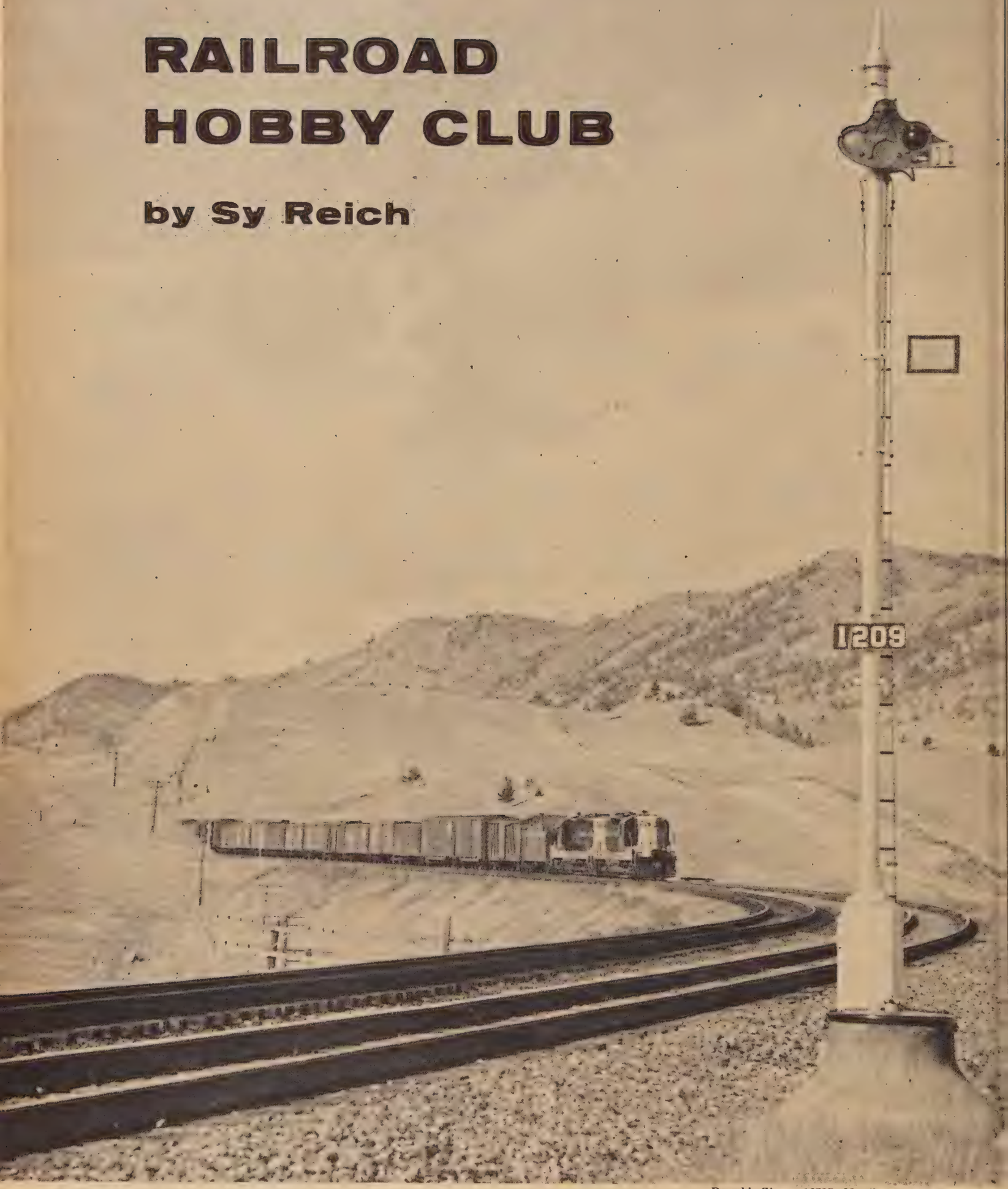
by Sy Reich



Donald Sims, 16737 Nordhoff, Sepulveda, Cali

FLAGSTOPS

PINE CREEK RR is an operating short-line plus a museum. It owns four steam locomotives, including a Shay, and is operating every Sunday again this year from April through October. This short line is run by railfans and is located on Rte. 9 near Freehold, N. J., about ten miles south of South Amboy.

For the benefit of fans who do not have automobiles, four one-day excursions have been scheduled, June 2 and 9, Sept. 24 and 31, from New York City, southbound via steamship *City of Keansburg* to Keansburg, N. J., and a short bus ride to Pine Creek RR., return to New York by bus. Prior reservation only. Fare $3.90, payable in advance. Queries answered by Jay Wulfsen, Box 271-D, RFD 1, Old Bridge, N. J.

The Interchange, the interesting and informative mimeographed magazine of Los Angeles Chapter, NRHS, recently published a comprehensive survey of mixed trains, listed by states, with mileages and railroads. The large number of such trains in this list may surprise you. Copies of the issue may be obtained, at 20c each, from the editor, Frank J. Bradford, 5739 Morgan Ave., Los Angeles 11, Calif. Annual subscription, $1.25.

On behalf of the Casey Jones Railroad Unit, C. J. Keenan, 6354 N.R. Cleveland Ave., Portland, Ore., has issued an embossed three-color cover for the 25th anniversary of "Inside Gateway Route" (see "Canyon War," Aug. '56 *Railroad Magazine*), postmarked Bend, Ore.; 25c each, 2 for 45c.

A "Hawaiian Paradise Cruise" from San Francisco on a luxury liner Oct. 11 will be sponsored by Pacific Coast Chapter, Railway & Locomotive Historical Society. Visit three islands, ride a Hawaiian railroad. Fare, $550.00 up. Contact Arthur Lloys, 3533 Pasadena Drive, San Mateo, Calif.

Farewell to N&W steam on Clinch Vall. Dist. The Southern Region of NRHS sponsors week-end fantrip May 3-5 to Norton, Va., using on mountain line the last N&W Pacific, built by Richmond in 1910. Leave Washington, D. C., 3:50 p.m. Friday. Leave Norton 7:15 p.m. Sunday. Fare incl. transportation and two nights in hotel, $27.50 ea. (double occupancy, $34.50 ea.). Another train, with chartered sleeper, leaves Washington 11:45 p.m. Friday and leaves Norton with rest of fans 7:15 p.m. Sunday. Contact Farrell I. Tod (v.p., Southern Region), 1908 N. Quintana St., Arlington, Va.

Illini Railroad Club, (M. R. Klebolt, pres., 305 S. Elm St., Champaign, Ill.) sponsors one-day steam fantrip June 23 over Nickel Plate, Chicago to Ft. Wayne. Leave LaSalle St. Sta. 9:30 a.m.; many photo stops, movie runs.

Fantrip from Cleveland, Akron, and Canton to Pittsburgh plus 5 hrs. on river steamer *Avalon*, last of her kind, May 26; round trip $8; sponsored by Midwest Ry. Historical Foundation. S. C. Lord (pub. dir.), 144 Rothrock Rd., Copley, O.

Washington chapter, NRHS, plans trip May 10 to Piney River, Va., via the Southern and the steam-operated Va. Blue Ridge Ry.; round trip, adults $7, young children $5.50. Trip committee chairman: Laurence C. Hart, P.O. Box 5557, Friendship Sta., Washington 16, D. C.

Barbara Kreimer apologizes for the typing error in her April department that designated *SD* as "stop delayed" instead of "signal displayed." A flock of corrections are coming in from railroaders. "As for the world's largest single-unit locomotives," writes H. T. Olson, Allen, Minn., "she should have said DM&IR 2200 series, not UP Big Boys."

Pacific Great Eastern Boosters plan trip July 5, North Vancouver to Prince George. Ernie Plant (pres.), Box 40, Horseshoe Bay, B. C., Canada.

Pittsburgh Electric Ry. Club (Chas. Benjamin, trip committee chairman, Box 832, Pittsburgh 30, Pa.), sponsors May 30 Switchback Special on B&O to New Castle Jct. and North Clarion Jct., steam-photo and lunch stops. Only 320 seats, all reserved. Board train at Pittsburgh, Etna, or Evans City. Round trip $6.75.

Northern Pacific freight approaches a curve while climbing a mountain just west of Livingston, Montana.

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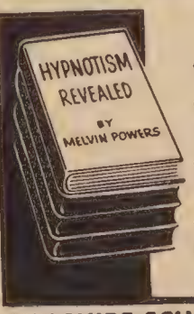

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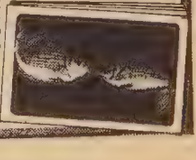

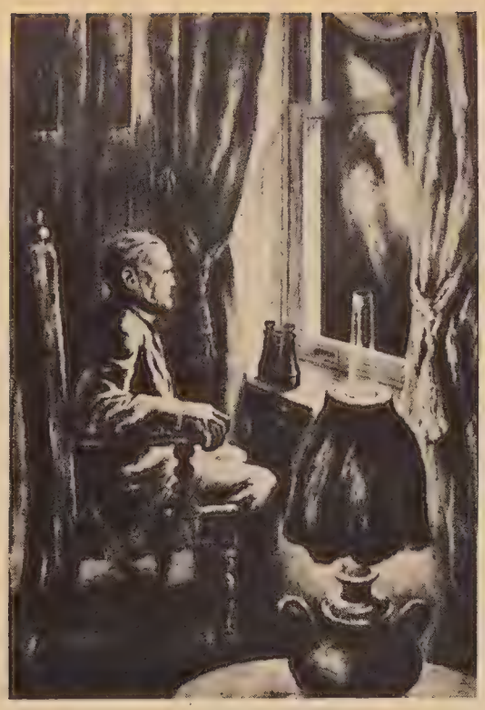

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500 MASSED ROCKETS shook Brooklyn Bridge, screamed up into the May evening and showered the city with red and gold.

While behind a darkened window, a big, gaunt man sat and watched, too crippled and painwracked to attend the opening day festivities for the bridge.

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ITEMS sent to this department are printed free, in good faith, but without guarantee. Write plainly. No entry longer than 28 words will be accepted—except those dealing with back numbers of this magazine. Address Sy Reich, *Railroad Magazine*, 205 E. 42nd Street, New York 17, N. Y.

Use such abbreviations as *cond.*, condition; *ea.*, each; *elec.*, electricity; *env.*, envelope; *esp.*, especially; *info.*, information; *n.g.*, narrow gage; *negs.*, negatives; *p.c.*, postcard; *pref.*, preferably, and *tr.*, train. The *term tts.*, refers to public timetables, unless preceded by *emp.*, when it means employe's (operating) timetables.

Anyone desiring railfan pen pals is entitled to a listing. State which phases of railroading interest you most and from whom you want to hear.

SWITCH LIST

JOHN AARDEMA, 114 16th Ave., Paterson, N. J., wants 5x7 photos Vgn. 300-305; Clinchfield 5, 6, 7, 20, 32-37 (steam); tender loco of 2-6-4 cab-on-end. Quote prices.

R. J. ANDERSON, 334 S. Prindle, Arlington Hts., Ill., sells size 116 steam and elec. negs.

DICK ARNOLD, Mt. Savage, Md., will sell B&O kerosene marker $7; B&O engine lantern, red globe, good cond., $5 exp. collect.

C. L. BALLARD, Box 3, Poestenkill, N. Y., will sell Railroad Magazine Aug. '45—Feb. '46, June '55, good cond.; also orig. 35 mm. color slides, steam and elec. Wants slides Toledo & East, OPS, Ia. interurbans.

LEROY BEAUJON, Canaan, Conn., wants items from CNE and predecessors PR&NE, CNE&W, H&CW, CW, R&C, D&C, ND&C, PH&B, P&E, NY&M. Also NH tts. 200, 227 prior to 1930 showing CNE.

G. J. BERNARD, 94 Dunmoreland St., Springfield, Mass., sells or trades tts., emp. tts., Railroad Magazine, Trains, Off. Guides; state wants. List for 3c stamp.

ROGER BRESLOW, 89 Dexterdale Rd., Providence, R. I., trades trfs, tkts., tts, folders (rr., bus, trolley). Answers all mail.

DOUG BRISTOW, 733 E. Brookline St., Winston-Salem, N. C., sells or trades back issues Railroad Magazine, Ties mag. from '25, model mags. Exchanges model rr. passes.

R. M. BUCKLEY, 183 Conant Dr., Buffalo, N. Y., will trade 8 mm. Kodachrome movies Rochester subway for same of Baltimore deck-roof trolleys, original footage only.

M. CASTELLANOS, 79 Ossipee Rd., Somerville, Mass., wants pix, maps, info. Boston els MTA, East. Mass. (Bay State), Middlesex & Boston, Boston & Worc., N. Mass.

NORTON CLARK, 29 Richardson St., Newton, Mass., wants info, pix Middlesex & Boston St. Ry. Will buy good 35 mm. slides Eastern Mass., Worcester St. Ry., United Elec. Ry., Boston El types 3 and 4. Answers all mail.

GENE CONNELLY, 3767 Greensburg Pike, Pittsburgh, Pa., trades size 116 negs. and pix of locos and cabooses, esp. short lines and elec. lines.

O. R. CUMMONGS (author of "Trolley Town, USA," Aug. '56), 300 N. Bay St., Manchester, N. H., wants pix, size 116 or larger, M&SC cars between Marieville and Granby and on St. Angell line.

C. COOK, 3100 E. Ovid, Des Moines, Ia., sells size 116 negs. locos and cars DM&CI, Ft.DD&S, Ia. Transfer, DM Union, CGW.

PAUL DOUGLAS, 2105 E. 27th St., Vancouver, Wash., will trade many 8x10 steam loco negs. for same size negs. of locos, steam river boats, whaleback lake ships, books. Details for stamped env.

CHAS. ELSTON, RD 2, Downington, Pa., will sell old issues of Trains.

JACK EMERICK, 200 S. Terrace, Boonton, N. J., wants negs. and pix Pennsy G-5 1815; also 2-10-4, 4-6-4, 4-8-4, all rds.

DICK BRUNDAGE, 60 Post St., Yonkers, N. Y., wants pix Pullman cars and trs., esp. NYC, RI, NH, Santa Fe.

R. FARRELL, 928 Heryzog St., Rietfontein, Pretoria, South Africa, wants railfan pen pals. (Editor's note: he forgot to state which phases of railroading interest him.)

JOS. FELIX, 208 Pleasant St., Roseville, Calif., sells streetcar and bus tokens and transfers.

R. D. FULLERTON, 54 S. Delmar, Dayton, O., will sell Railroad Magazine '40-'55 compl., also 36 issues '36-'39; will ship in trunk expr. collect, $30. (Editor's note: He forgot to state cond.)

L. W. GOODWIN, Box 3, Northfield, Conn., buys, trades tts., emp. tts. of small, merged, and abandoned rds. and elec. lines.

DAN GROTTY (age 19), 1155 Shenandoah Rd., San Marino, Calif., wants to hear from Morse telegraphy students, like himself.

D. C. HALLETT, 25 Norman Close, Romford, Essex, England, will sell complete sets British Rys. tts.; will buy Off. Guide from about 1930.

DICK HARRELL, 796 Graceland St., Barberton, O., will sell for $150 many old issues of trains, other mags., NKP tts., tr. orders, baseball collection, all of which he values at $500. Write for info.

SAM HARRIS, 1947 34th Ave., San Francisco, Calif., trades size 620 pix last day operation Geary St. cars of San Francisco for other trolley pix, same size.

R. J. HARRISON, 226 Sears Rd., West Islip, N. Y., will sell for best offer Railroad Magazine, Jan. '50 thru Aug. '54, good cond.

HELMUTH HINZE, Supt. Hamburg-Holstein Rys., Norderquerweg 77, Hamburg-Kirchwerder, Germany, wants rosters, info., pix of U. S. and Canadian steam power, incl. n.g. Offers info., tts., pix of German hds., pref. exchange.

WALTER HOFER, 41 Maltby Pl., New Haven, Conn., will trade '07 tt. B&W St. Ry., '30 tt. Portland-Lewiston Interurban for emp. tts. same companies.

DON JACKSON, 12 Winding Lane, Basking Ridge, N. J., makes rr. pix from negs. 15c ea., any size under 4½ x 3¼. More than one of a kind, 10c ea.

RON. JOHNSON, 3051 Medill St., Chicago, Ill., buys Milw. Rd. steam slides, pix, negs., old tts. State price, cond.

ARNOLD JOSEPH, 2512 Tratman Ave., New York, N. Y., sells back issues Railroad Magazine, Trains, other mags. List for stamped env.

TED KIMBALL, 15235 Kingsbury St., San Fernando, Calif., sells p.c. size pix US rrs. Trades emp. tts. List, sample pic, 10c.

JOHN KOELLA, 1741 Dixwell Ave., Hamden, Conn., sells or trades size 116 and p.c. rr. and trolley pix, and Conn. Co. tts. Info. for 3c stamp.

WM. KOENIG, 1004 W. 8th St., Erie, Pa., sells or trades 8 mm. color movies NKP, Pennsy steam and diesels; also NYC, BAR diesels.

RAY KUCERA, 3008 S. Kolin Ave., Chicago, Ill., will send Chi. trolley trfs. for stamped env. Also trades for other cities.

JOE LAPEUSZ, 39 Maltby Pl., New Haven, Conn., will trade 75 issues Railroad Magazine, '06-'37, for emp. tts. of rrs. and interurban lines.

TOM LAWSON, Jr., 2533 Montevallo Rd., Birmingham, Ala., wants pix, steam, diesel, short lines, industrial rds. US and Canada, sizes 116, 120, p.c. Send list.

MORRIS LLOYD 226 Hendricks Blvd., Buffalo, N. Y., will sell tts., travel literature, S.W. US and Mexico, 50 items, for best offer.

J. C. Illman, 7400 Erroll Drive, El Cerrito, Calif.

Burlington freight with No. 6327 (4-8-4), Class M-4a, at Litchfield, Ill.

JOHN MACLEAN, 542 Cranbrooke Ave., Toronto, Canada, sells 2x7 color slides, many US, Canadian, and overseas steam, diesel, elec. lines, 35c ea., 3 for $1; 3½x5 color prints, 60c ea. List, sample slide, 35c. (Editor's note: readers outside Canada pay with International Money Order, obtainable at any P.O. Canadians ordinarily can't use US stamps.)

STUART MALKIN, 126 Walnut St., Bloomfield, N. J., wants emp. tts., tts., tkts., before 1900; rr, advs. before 1860; tr. orders. Send list.

JOE McMILLAN, Box 515, Yorktown, Tex., wants Off. Guide and Equip. Reg. prior to 1925. Write first, state price.

JOE MEYERS, Box 267, Oxford, N. J., wants info., tts., pix L&HR, Woodstock & Springfield Term.

M. D. MEYER, 238 W. Water St., Brillion, Wis., will sell set of 10 pix, size 620, Milw. Rd., C&NW; buys any size Milw. Elec. Ry. pix or negs.

WM. MILLSAP, 409 S. Lincoln, Robinson, Ill., wants any C&EI steam pix, esp. 1007, 1021, 1023.

DON NATHAN, 1204 Wendell Ave., Schenectady, N. Y., wants Off. Guides, tts., emp. tts. Eastern and short lines, esp. NYO&W.

MYRON NAUMANN, contact Walt Harris, 45 W. Elm St., Stockton, Calif.

D. F. NESTLE, Box 221, Milford, N. Y., sells old duplex tr. tkts. FJ&G, 15c ea., or trade for FJ&G data; NYC frt. bills dated 1858-'69, 20c ea.

G. W. PLUMMER, 116 W. Walnut St., Independence, Kan., sells and swaps Midwest loco pix (incl. color) tr. orders, tts., emp. tts. List for 3c stamp; specify which list.

Rev. C. M. POND, 10 S. Cherry, Freeport, Ill., wants any size color negs. pix, slides Central Calif. Tract. and Portland (Ore.) Tract. Sells, trades Midwest interurban, size 116 or 120.

MICKEY POOLE, Box 161, Hillsville, Va., is printing a little paper called R.R. Journal, 50c a year. Sample and details free.

HARRY POUTRE, 8 Mann Ave., Cohoes, N. Y., sells many rr. and boat waybills, bills of lading, telegrams, 1849-'92. Details for stamped env.

TOM PUGLIS, 20 W. 8th Ave., Gloversville, N. Y., buys pix and negs., any rr; sells pix, many rrs. Wants to hear from railroaders.

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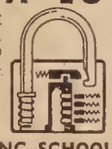

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JOE QUINN, Box 24, Tillson, N. Y., buys or trades on approval large size negs. steam, elec. Send lists first.

J. C. RANEY, Rm 845, 633 N. 4th St., Milwaukee, Wis., wants Milw. Rd. or RI switch key; will trade photos of UP steam power.

LOUIS RICH, 213 Syme St., Sharon, Pa., buys size 116 steam pix short lines; trades US and foreign stamps.

J. E. RONAN, Rt. 1, Box 1-C, Nunica, Mich., will sell many Railroad Magazines, '40-'55. Send for list.

DICK RUMBDZ, 2819 Cedar Ave., Lincoln, Neb., has new list of juice pix, size 616 or p.c., for sale. Also steam 35 mm. color slides.

EARL SARGENT, 405 N. Keystone St., Burbank, Calif., will sell 203 copies Railroad Magazine '30-'53, good cond., for best offer. List for stamped env.

NEIL SHANKWEILER, 387 W. Oakland Ave., Doylestown, Pa., sells Pennsy and Rdg. steam pix, also diesel pix and negs., Eastern rds. Wants steam negs. any rd., Railroad Magazine for Mar., June '55, June '44. Send for list.

DICK SHIDELER, Rte. 1, Box 160, Lathrop, Calif., will buy on approval SP steam pix taken before 1940, esp. 1000, 1300, 1400, 1500, 2000 classes.

A. D. SLATER, 1596 Wood Rd., Cleveland Hts., O., has Railroad Magazine 1929 to date, few missing, some clipped; sell to highest bidder.

ROBT. SOLOMON, 1703-A 3rd St., Alameda, Calif., collects trolley tokens. Send list telling cond., city. Will send my list. Answers all mail.

FRANK STEELE, R. D. 1, Beaver Falls, Pa., will sell Railroad Magazine, rr. calendars, Loco Eng. Journals, Baldwin Locos. mag. Write for details.

A. E. STENSVAD, 811 E. 3rd, N. Platte, Nebr., sells 4x5 negs. steam UP, C&S, DRGW, GW. Write for list. Wants negs. or pix UP 9018, 9700-9708, 2800, 5000, 100 and others. State details in first letter.

WARREN STOWMAN, 2011 W. Godfrey Ave., Philadelphia, Pa., wants p.c. size or larger 4-4-2, any rd., esp. AT&SF, N&W, GN, SP; also 4-8-0 and Russian 2-10-0, any rd. Trades pix Camelbacks such as UP 2-8-0, Port. Term 0-6-0, W&LE 4-6-0, etc. Send lists.

WALLACE SWANSON, 5729 27th Ave., NE, Seattle, Wash., buys size 116 or p.c. steam negs., loco diag. sheets, any rd. Sells Railroad Magazine, Trains, other mags., calendars.

E. L. THOMPSON, 78 Park St., Portland, Maine, wants token from obsolete US and foreign tram, bus or ferry lines. Will trade 5x7 pix of Maine area, incl. Portland's last trolley.

ROY VINCENT, c/o Capitol Lunch, 30 Bliecker St., Gloversville, N. Y., buys and trades p.c.'s and pix of trolleys, horse-drawn fire engines and milk wagons; also iron horses.

JOHN WEIGHTMAN, Box 696, Sacramento, Cal., will make good copy neg., size 116 from any size rr. pic, $1 ea.

RAY WHITAKER, ETRSN, USS O'Bannon DDE 450, c/o FPO San Francisco, Calif., buys negs., size 116 or 616, SP, T&NO, StLSW, NWP, PE, SD&AE, any short line, indust. or logging rr., steam or diesel.

GARY WILSON, 353 Penn St., Pasadena, Calif., offers 11 steam pix, sizes 116 and p.c., $1. Sample 10c. Wants private int. car pix.

CHAS. WROBLESKI, R. 331 Gibson St., Scranton, Pa., wants tkts., tts., eqmt. plans, Lacka. & Wyo. Va., anything on D&H Canal Co. or Penna. Coal Co. Gravity RR

LYNN WHYTE, 115 Anndale Dr., Willowdale, Ont., Canada, sells and trades US and Canadian pix and negs. List, 10c.

JOHN WUNDERLE, 3215 Wendover Cir., Youngstown, O., will sell Railroad Magazine '37-'41, '44-'52, $4 per yr.; May-Dec. '36; '42 exc. Feb.; Jan.-June, Aug., Dec. '43; '53 exc. Dec.; Jan.-Mar., Aug.-Dec. '54; June, Aug. '56 30c ea.; other mags. Write for info.

W. E. YOUNG, South St., Roxbury, Conn., buys Conn. Co. rte. letters and Waterbury-N. Woodbury line pix. Answers all Conn. Co. fans mail.

H. YOUNGER, 8822 Cynthia St., Los Angeles, Calif., will sell Railroad Magazine '45-'53, good cond., also West Coast juice line pix. List, sample, 15c.

FRANK HOFFMAN, Lenape Rd., R. D. 4, West Chester, Pa., will sell 1947, '48, '50 Off. Guides, $1 ea., postpaid in U.S. (Editor asks, what cond.?)

WM. RADCLIFFE, Box 575, Webster, Mass., buys and swaps size 616 negs. B&M, NH, Pennsy, N&W, D&RGW. Has some 35 mm. Kodachrome slides to trade for those of any steam rds.

TED GAY, 156 Van Buren Rd., Teaneck, N. J., sells sizes 116 and p.c. negs., steam locos and trains, very many rds., big and small. Also trade for good 8 mm. rail movies or sailing-ship model.

D. H. DOLBIER, 439 W. 5th St., Reno, Nev., sells pix SP, UP, V&T, etc., 3½x5, 5x7, 8x10. Will buy 2½x3½ negs. (Editor asks: Which rds.? Steam, diesel, other rr. subjects?)

NORMAN THOMAS, F.P.H.A. 631-3, West Lafayette, Ind., will buy any size pic Santa Fe loco 4086; write first.

JIM MALLARD, Box 126, Lexington, N. C., wants colored rr. postcard scenes; send list first.

R. W. NEDROW, 504½ E. Oregon St., Urbana, Ill., wants Peoria & Eastern pix, negs. (Editor asks: Size? Loco pix or what? Our readers aren't very good at mind-reading.)

NEIL NORKAITA, 318 W. Clinton St., Haledon, N. J., sells various-sized steam pix B&O, CNR, N&W, PRR, etc.; list, sample, 10c.

R. D. MacARTHUR, Box 248, Yucalpa, Calif., will sell back copies Railroad Magazine 20c ea. postpaid. Will buy R&LHS Bulletin 57. (Editor asks: Which issues for sale, in what cond.?)

HENRY TRUMAN, 625 W. Wayne St., Fort Wayne, Ind., will buy B&O Mags., any issues, 1924-'29; write first.

WM. SHOOTS, Box 153, Wilmington, Calif., wants sharp pix, negs. of PE 120, scenic background, size 120 or bigger; also PE historical info., rosters, anecdotes.

RUDOLF LOOS, Geschwenda, Thuringia, Arnstadterstrasse Nr. 37, Germany, will sell album of 300 colored rr.-pic cigarette cards, also 45 diff. metal transportation tokens, etc. Write for info.

ART ALKERTON, 168 Katt St., Dundas, Ont., Canada, will trade 4x2¾ snaps of last TH&B operating switcher and CNR steam, diesel pix for SP and Milw. steam, diesel pix.

A. J. JORDAN, 211 Wineva Ave., Toronto, Canada, will sell 8 vols. Macauley's Modern Ry. Workings; Railroad Magazine, '37 to date; or trade for what have you in Canadian railroadiana.

D. PEREZ de LEON, Ave. Chietla 716, Col. La Paz, Puebla, Pue., Mexico, gives 128-page Nat. Rys. of Mexico magazine, Ferronales, printed in Spanish, to each person sending 2 U. S. or Canadian dimes. (He writes English.)

T. ERNIE DAVIS, 5216 S. Figueroa St., Los Angeles, Calif., lonely invalid telegrapher (see Feb. '57 Railroad Magazine, page 73) wants pen pals.

GRANVILLE THOMAS, 218 E. Vine St., Millville, N. J., will sell for best offer Railroad Magazine, Dec. '41 thru Dec. '54; Trains, No. 1 to date; Loco. Engrs. Journ., 190 copies, beginning 1936.

J. E. HICKS, 4704 Vineta Ave., La Canada, Calif., will sell personal library rr. and Old West travel books. Free list for big, stamped, self-addressed env.

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DON KENT, 227 Germanhill, Baltimore, Md., will swap Lionel 3-unit NYC diesel, 10 frt. cars, KW transf., all best cond., for 700EW Hudson.

JOE MOONEY, 206 Andover St., Wilkes-Barre, Pa., will sell or swap OO gage scale items. Wants S gage scale or HO, no junk. Send your list; I'll send mine.

O. A. PARRIS, 1019 13th St., Bremerton, Wash., will trade OO gage Scalecraft, Lionel, and Nason cars for Sc't auto and flatcars or Nason aluminum box and flat cars.

DICK RYAN, 127 Parkwood Ave., Kenmore, N. Y., will sell O gage scale F-7 A units, all brass castings; also SF 2-8-2 casting, kit, parts. Send for list.

A. D. SLATER, 1596 Wood Rd., Cleveland Hts., O., will sell inch-scale live-steam parts, assembled, incl. drivers, axles, journal boxes, crank pins, frames, spring rigging.

DICK SWANSON, 5729 27th Ave., NE, Seattle, Wash., sells and trades HO gage items, also football programs.

JOHN VAGO, 164-13 73rd Ave., Flushing, N. Y., will sell Globe diesel, 2 Athearn frt. cars, Varney caboose, all with Kadee couplers; 3 snap switches, 22 sec. snap trk., 90 deg. crossing, misc. parts, all for $30.

J. MURRAY, 33-R Wnithrop St., Rehobeth, Mass., will sell compl. amus.-pk.-size steam train, trk. Pix and details $1 (refundable).

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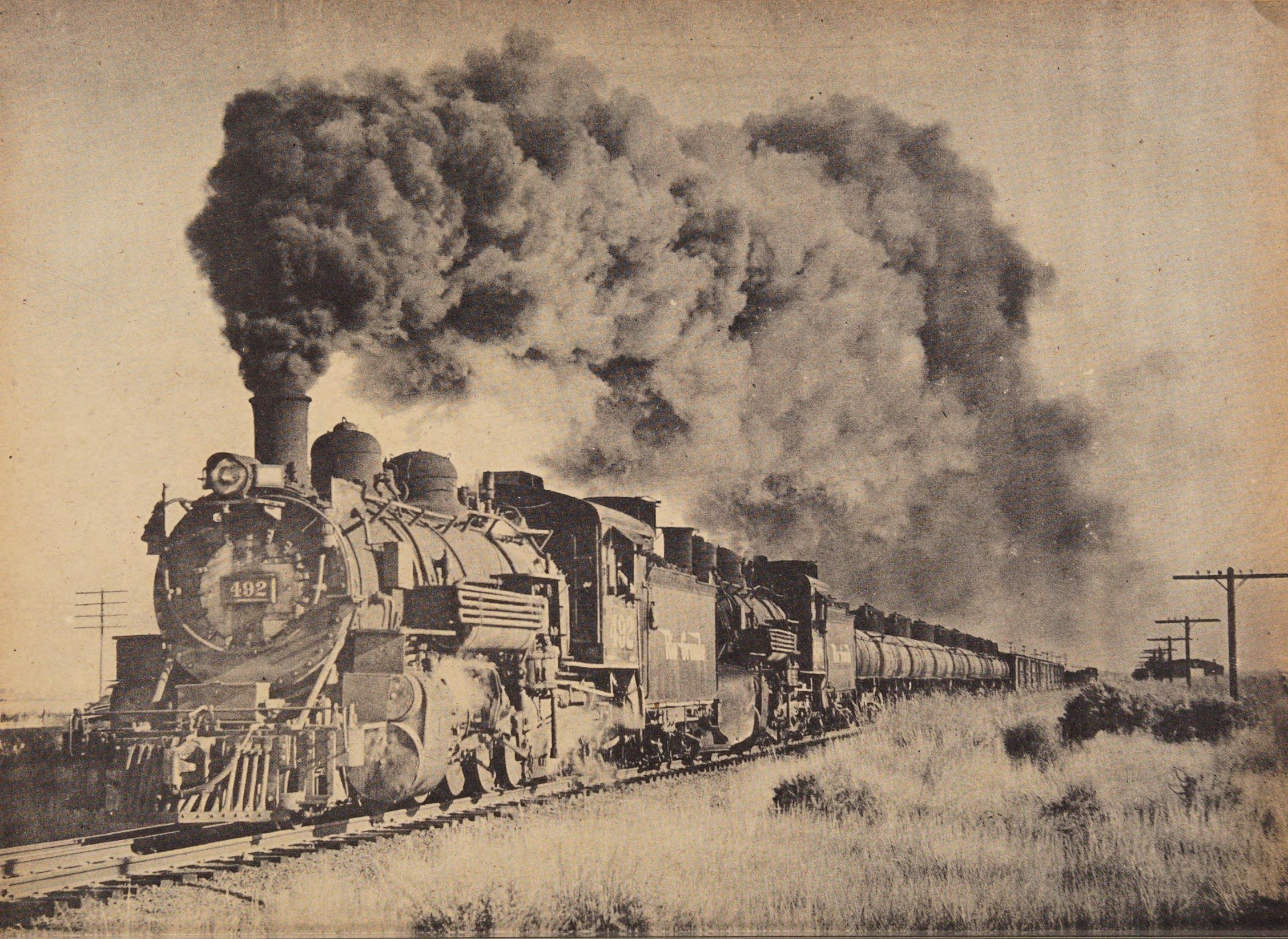
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